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Michigan
Transportation Asset
Management Council

2022-2023-2024

Strategic Work Program

Michigan Transportation Asset Management Council

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TAMC acknowledges the efforts and contribution by Christopher Bolt, MAC Representative 2018-2021.

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2022 – 2024 Strategic Work Program**

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Michigan Transportation Asset Management Council

2022 – 2024 Strategic Work Program

Overview

The Transportation Asset Management Council (TAMC) is expanding the practice of asset management statewide to enhance the productivity of investing in Michigan's roads and bridges through coordination and collaboration among state and local transportation agencies. TAMC's activities include surveying and reporting the condition of roads, bridges, and surface transportation system by functional classification categories and assessing completed and planned investments in roads and bridges. TAMC also supports the development of appropriate asset management methodologies and provides education and training on the benefits of developing road improvement programs using asset management principles and procedures. A key component for the TAMC is providing value for the transportation agencies in the training/education, data that is collected and analysis.

TAMC is comprised of professionals from county road agencies, cities, township officials, regional and metropolitan planning organizations, and state transportation department personnel. The Transportation Asset Management Council reports directly to the Michigan Infrastructure Council (MIC) and is a resource for the State Transportation Commission (STP) and the Michigan Legislature. Members of the Transportation Asset Management Council are appointed to 3-year terms. The Center for Shared Solutions (CSS) is the Central Data Storage Agency (CDSA) of TAMC and serves as a non-voting member. The activities of TAMC are supported by the TAMC Coordinator and Michigan Department of Transportation (MDOT).

Vision: A national leader, promoting asset management principles and practices, to guide investment decisions among Michigan's transportation agencies

Mission: To develop and support excellence in managing Michigan's transportation assets by:

1. Advising the legislature, the State Transportation Commission, the Michigan Infrastructure Council, transportation committees, and others
2. Promoting asset management principles
3. Providing tools and practices for road agencies
4. Collaborate and coordinate with Water Asset Management Council and other asset owners

Purpose

The purpose of this work program is to provide guidance on the strategies, financial and tactical tasks associated with carrying out the TAMC program as required under Michigan law. The

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work program also provides tactical objectives directing the various committees, contractors, support staff and program partners for the timeframe of 2021 - 2023.

TAMC Legislation and Public Act 51

TAMC was formed under Public Act (PA) 499 of 2002 followed by several amendments, including PA 338 of 2006; PA 199 of 2007; PA 257 of 2010; PA 298 and PA 506 of 2012; PA 323 and PA 325 of 2018; and PA 152, PA 153 and PA 164 of 2020. PA 499 of 2002 established TAMC as an organization with membership and staffing within MDOT and created the responsibility to prepare an annual report detailing its activities during the previous year and plans for upcoming years. Initially, under PA 499 TAMC was accountable to the State Transportation Commission; in 2018 this changed under PA 323, where the Michigan Infrastructure Council would have oversight responsibility of TAMC as well as the Water Asset Management Council (WAMC).

The TAMC's current list of statutory responsibilities includes:

- Advising the Michigan Infrastructure Council on a statewide asset management strategy (Michigan Compiled Law (MCL) 247.659a(3));
- Advising the Michigan Infrastructure Council on the processes and necessary tools needed to implement asset management strategies on a statewide basis, beginning with the federal-aid eligible highway system and infrastructure assets that impact system performance, safety, or risk management, including signals and culverts. (MCL 247.659a(3));
- TAMC, in conjunction with the department, counties, and municipalities, shall develop and implement a pavement management system for each mile of roadway on the Federal-Aid eligible highway system in Michigan. This pavement management system shall attempt to ensure that a disproportionate share of pavement shall not become due for replacement or major repair at the same time. TAMC shall provide local road agencies with the training needed to utilize the pavement management system in accordance with this section. (MCL 247.651g);
- Allowing road agencies in the state to link to the TAMC dashboards to improve government transparency as it relates to transportation infrastructure (MCL 247.668j(3c));
- TAMC is also permitted, under the act, to appoint technical advisory committee whose members shall serve as needed to provide research on issues and projects as determined by TAMC (MCL 247.659a(7));
- TAMC shall promote and oversee the implementation of recommendations from the regional infrastructure asset management pilot program on a statewide level as the program relates to roads, bridges, and related transportation infrastructure (MCL 247.659a(9));
- TAMC shall develop a template for an asset management plan for use by local road agencies responsible for 100 or more certified miles of road and require its submission to the TAMC (MCL 247.659a(10));

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- TAMC shall establish a schedule for the submission of asset management plans by local road agencies (MCL 247.659a(10));
- TAMC shall review asset management plans submitted no later than 6 months after receipt of the asset management plan and compare the asset management plan to the minimum requirements and the template created by TAMC and determine whether the asset management plan is in compliance with those standards. If the asset management plan does not meet those standards, TAMC shall seek concurrence from MDOT that the asset management plan does not meet the TAMC standard. If MDOT concurs, TAMC shall require the local road agency to revise its asset management plan to conform to the standards within 6 months after notifying the local road agency that the asset management plan does not meet the TAMC standard. TAMC shall provide an opportunity for a noncompliant local road agency to discuss the reasons the local road agency's plan is not in compliance and ways for the local road agency to become compliant (MCL 247.659a(13));
- Beginning October 1, 2025, if TAMC, and MDOT concurs, that a local road agency has not demonstrated progress toward achieving the condition goals described in its asset management plan for its Federal-Aid eligible County Primary Road System or City Major Street System, TAMC shall provide notice to the local road agency of the reasons that it has determined progress is not being made and recommendations on how to make progress toward the local road agency's condition goals. The local road agency shall become compliant within 6 months after receiving the notification required by this subsection. TAMC shall provide an opportunity for the noncompliant local road agency to appear before TAMC to discuss the reasons the local road agency is not compliant and ways for the local road agency to become compliant. If the local road agency is not compliant within 6 months after receiving required notification, the local road agency shall not shift funds distributed to it under this act from a County Primary Road System to a County Local Road System or from a City Major Street System to a City Local Street System, as applicable. Upon demonstration of progress toward achieving its condition goals, a local road agency may shift funds distributed to it under this act from a County Primary Road System to a County Local Road System or from a City Major Street System to a City Local Street System, as applicable. A local road agency may submit a revised asset management plan to TAMC (MCL 247.659a(14));
- TAMC shall submit this report to the Michigan Infrastructure Council, the State Transportation Commission, the legislature, and the transportation committees of the Michigan House and Michigan Senate by May 2 of each year. (MCL 247.659a(15));

TAMC also plays a variety of roles that support and promote the asset management process. These roles include:

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- Communication conduits to and from the constituent organizations, ensuring that the needs and concerns of the various stakeholder organizations are aired during TAMC deliberations, and that TAMC decisions and policies are then shared with, and when necessary, discussed with those same organizations.
- Ensuring that certain activities prescribed in the authorizing legislation are completed in accordance with that legislation (MCL 247.659a).
- Ensuring that any additional activities undertaken by the TAMC are completed within the timeframe and budget established by the TAMC, and accordance with the overall intent of the authorizing legislation.

Appendix B contains legislation related to TAMC as amended into Michigan Compiled Law.

Appropriation & Budget

Once established in Michigan Compiled Law in 2002, TAMC was provided an appropriation of \$1,626,400 from the Michigan Transportation Fund (MTF). This amount remained consistent until 2017 when TAMC made a request for an additional \$250,000. The State of Michigan's Fiscal Year (FY) budgets of 2018 through 2021 provided \$1,876,400 to TAMC. The FY2022 TAMC budget will be based upon \$1,876,400 for revenues; it is assumed this budget level will remain consistent through the three years of this Strategic Work Program.

Program Area	FY22	FY23	FY24	3-Year Total
I. Data Collection & Regional-Metro Asset Management Program	\$1,116,400	\$1,116,400	\$1,116,400	\$3,349,200
II. Central Data Agency	\$374,950	To be determined	To be determined	To be determined
III. Training & Education Program (MTU-CTT)	\$210,658	To be determined	To be determined	To be determined
IV. Activities & Studies	\$128,425	To be determined	To be determined	To be determined
V. TAMC Conferences Printing Expenses	\$40,000	\$40,000	\$40,000	\$120,000
VI. Special Projects	\$438,263	\$0	\$0	\$274,118
Total	\$2,308,696	\$1,876,400	\$1,876,400	\$6,061,496

Special Projects

In January of 2018, an additional appropriation of \$2,000,000 was provided to TAMC out of the State of Michigan's Infrastructure Fund. Under House Bill 4320 (S-3), a supplemental appropriation was given to TAMC for the purpose creating a pilot project for the collection

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of inventory data and the evaluation of culverts owned by local transportation agencies within Michigan. Although this appropriation was a one-time grant for TAMC and has not been renewed in subsequent budgets, a fund balance remains from this initial allocation. For FY22, the budget includes \$274,118 to provide reimbursement for those agencies that participated in the 2018 project to complete their inventories and condition assessments.

Appendix D contains TAMC Financial & Budget Reporting.

Organizational Structure

The TAMC was created to promote asset management principles and the asset management process, and the legislation designates that TAMC members are appointed by various public stakeholder organizations within the transportation community. This requires a series of well-orchestrated and coordinated efforts, carried out by a multitude of actors and organizations in both a formal and informal manner. What follows is a high-level description of the formal entities that have roles and responsibilities for administration of the TAMC, the TAMC Work Program, the various technical and contractual assistance provision and ongoing operational support staff required to perform TAMC's statutory reporting and various defined and undefined roles. These descriptions are intended to be summaries and are not an exhaustive reporting of all aspects of TAMC coordination.

TAMC - Council

From the formal legislation that created TAMC and responsibilities it charged TAMC with completing, it can be inferred that TAMC members are expected to attend and participate in meetings of the organization, to chair and/or serve on at least one committee and/or subcommittees of the organization, and such other responsibilities as are assigned and necessary for the organization to achieve its goals (by-laws). TAMC and committee chairs are expected to work with the TAMC support staff to prepare agendas for their meetings and to arrange for speakers, exhibits, and/or presentations on topics of interest to the committee or TAMC.

Michigan Compiled Law defines the council representation and partner organizational membership. Currently, TAMC shall consist of 10 voting members approved by the MIC. The council shall include 2 members from the County Road Association, 2 members from the Michigan Municipal League, 2 members from the state planning and development regions, 1 member from the Michigan Townships Association, 1 member from the Michigan Association of Counties, and 2 members from MDOT. Nonvoting members shall include 1 person from the Central Data Storage Agency (CDSA), or office selected as the location for central data storage.

It is the responsibility of each member organization to seek out qualified individuals for nomination to the TAMC. Once the nomination is received, it must be acted upon by the MIC. The position of the CDSA shall be nonvoting and shall be for as long as the agency continues to

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serve as the data storage repository. All terms for TAMC members shall be for 3 years, except for the MDOT and central data storage agency representatives.

The chairperson shall be selected from among the voting members of the council. All voting members of the TAMC are eligible to be Chairperson or Vice- chairperson of the TAMC. The Chairperson and Vice-chairperson's Terms of Office shall be three years. Officers may be reelected to additional terms by the TAMC. Terms may be consecutive. Elections for Chairperson and Vice-chairperson of the TAMC shall be held during the September TAMC meeting in the last year of the 3-year term or as needed to fill a vacant officer position. Election shall be by a majority vote of the attending voting TAMC members during a regular TAMC meeting where a quorum is present. It is the responsibility of the Chairperson to chair monthly meetings, publicly represent the TAMC and speak on its behalf. It is the responsibility of the Vice-chairperson to perform these duties in the absence of the Chairperson. If the Chairperson or Vice-chairperson fails to meet this responsibility, the voting membership of TAMC may dismiss the Chairperson or Vice-chairperson by majority vote.

TAMC- Committees

At a minimum, each voting member shall serve on one TAMC Committee. The TAMC Chairperson shall select TAMC members for each committee. Member assignments may be reviewed and changed by the TAMC Chairperson as necessary during the Chairperson's term of office. Each committee of the TAMC shall have a Chairperson and a Vice-chairperson selected by majority vote of the voting membership of each Committee. Each committee Chairperson and Vice-chairperson shall serve a 3-year term. In the absence of the committee Chairperson, the committee Vice-chairperson shall manage the committee meetings. Any committee may include for support, technical, or other reasons; non-TAMC members as non-voting advisory participants in the committees.

The TAMC has three permanent committees as follows:

1. Administrative, Communications and Education (ACE Committee): Committee comprised of 3 to 5 TAMC members that advises the TAMC on matters pertaining to training, communications, education program and budget.
2. Data Committee: Committee comprised of 3 to 5 TAMC members that advises the TAMC on matters pertaining to data collection, quality, and analysis.
3. Bridge Committee: Committee comprised of 3 to 5 TAMC members that advises the TAMC on matters pertaining to application of asset management principles to bridges and the creation of guidance materials and training program.

The TAMC or the TAMC Chairperson may establish other 'ad hoc' committees as necessary for the operation of the TAMC. Such committees shall operate until the TAMC or TAMC Chairperson disbands them.

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Appendix C contains the TAMC Bylaws; Appendix E includes the TAMC Member Roster, representative organizations, terms of service and committee assignments.

Support Staff

In addition to having two seats on TAMC, MDOT is also directed to provide qualified administrative staff to support the TAMC's functioning. There are a multitude of tasks that are included in the coordination of the TAMC program. At a high level, this includes managing the TAMC work program, providing TAMC with regular updates on progress of the program and assisting in the periodic creation of new work programs and ensuring that TAMC is fulfilling statutory obligations as defined in legislation and compiled law.

Operationally, support also includes preparations with TAMC Chairperson and Committee Chairpersons for preparations for meeting agendas, scheduling, ensuring compliance with the Open Meetings Act, budgetary, contracting and accounting functions and coordinating TAMC communications with partner agencies, contracting entities as well as the general public. TAMC support staff also coordinate and manage the logistics and facility contracts for conferences, meetings and various other ad-hoc and routine activities. Support staff also ensure adherence to State of Michigan requirements and regulations pertaining to lodging, meals and travel reimbursements for TAMC members, partner organizations and local agency participants.

MDOT also participates in the annual Federal-Aid data collection effort by providing trained staff members for the rating teams. This effort also includes provision of vehicles and coordination with the respective Regional Planning Agency and Metropolitan Planning Organization (RPA/MPO) and local agencies to schedule and collect data.

Lastly, TAMC policy, MDOT contractual guidelines and Act 51 regulation establishes a series of compliance requirements that TAMC contractors and local agencies are subject to follow. Support staff at MDOT have the responsibility to ensure compliance with these Act 51 requirements. This includes reporting of the status of compliance for reporting requirements on an ongoing basis as well as act Program Manager with oversight of technical assistance, training and work program contracts with the CDSA, RPA/MPO contracts and the contracts for training, technical assistance and TAMC-sponsored conferences, meetings and workshops.

Central Data Storage Agency (CDSA)

In addition to having one non-voting seat on TAMC, the CDSA is also responsible for providing a secure data storage facility, ensuring that the data is accessible to the TAMC, the 617 transportation agencies in the state, the 14 regional planning agencies, metropolitan planning organizations and to the greater public. The CDSA is also responsible for the coordination of any activities contracted for with TAMC such as the development, operation and maintenance of TAMC's Investment Reporting Tool (IRT), TAMC's interactive performance dashboards, interactive maps and website. Currently, the CDSA designation for TAMC is the Michigan

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Department of Technology, Management and Budget's (DTMB) Center for Shared Solutions (CSS).

Appendix F contains the FY2021 TAMC Work Plan for CSS and guidance document on roles and responsibilities for CSS and MDOT.

Technical Assistance – Regional and Metropolitan Planning (RPA/MPO)

In addition to MDOT support staff, the TAMC annually contracts with Michigan's Regional Planning Agencies and Metropolitan Planning Organizations (RPA/MPO) to provide technical assistance related to the promotion of asset management principles, roadway inventory and condition data collection and other activities within each regional boundary. The TAMC Budget contains annual allocations to the RPA/MPO, and MDOT support staff coordinates and administers the Unified Work Program for asset management. At a high level, RPA/MPO allocations provide funding for training, equipment and data collection expenses incurred by planning staff as well as local agencies that participate in TAMC program activities. RPA/MPO work programs also include provision of technical support to local agencies for asset management plan development, data sharing and assistance with compliance with TAMC and Public Act 51 reporting requirements.

Appendix J contains the Unified Work Program for RPA/MPO; Appendix D is the TAMC Budget which includes allocations to each of the RPA/MPO contracts involved with TAMC's program.

Technical Assistance – Michigan Technological University (MTU) Center for Technology & Training (CTT)

As part of its function to provide staff support for TAMC, MDOT has contracted with Michigan Technological University's Center for Technology and Training (CTT) to develop and administer a training program that has the principle components to meet the needs of TAMC's audience as well as prepare participants and certify their competence to perform annual data collection activities. Due to its expertise in managing registrations for the variety of training programs hosted by CTT, MTU also has the roles of registering participants in the TAMC spring and fall conferences, managing the audio/visual tech for the conferences, and collecting and analyzing the feedback from conference participants.

MTU is the creator of the Roadsoft software that was selected by TAMC as the preferred data collection tool for PASER ratings. As the owner of the software, MTU is also responsible for training in the use of Roadsoft, tech support for any issues associated with Roadsoft, coordinating with CSS for the efficient and accurate collection and transfer of TAMC data from Roadsoft to CSS's database, developing new tools that speed and simplify the collection of TAMC data or other data of use by transportation agencies, as well as perform annual updates of the Roadsoft software.

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CTT also functions as a technical advisor to TAMC providing insights into current research practices in the field of asset management, and providing explorative, applied research activities to meet the needs of TAMC programs. This includes providing technical briefings, pilot studies or professional opinion when requested.

Appendix G contains the 2021 Education Work Plan, Appendix H contains the 2021 Technical Assistance Activities Work Plan.

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TAMC Goals & Objectives 2022-2024

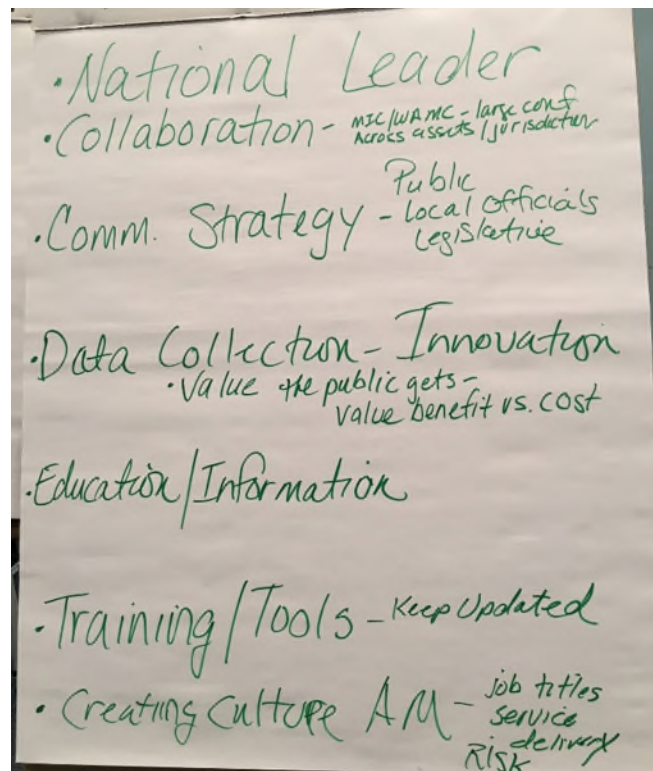
Strategic Sessions

On June 6, 2018 TAMC held a Strategic Planning Session to guide TAMC's future work programs and provide direction to the various partner and contractual entities that assist TAMC in the deployment of asset management. After a thorough review of pending legislation, TAMC members revised the Mission Statement and Vision Statement (as found on page 2) as well as debated the potential impacts of the legislation on partner agencies and TAMC. TAMC also reviewed elements identified from both the Regional Asset Management Pilots project and the 21st Century Infrastructure Council Report. Lastly, TAMC also discussed assignments of action items to various TAMC Committees and partners. Outcomes of the June 6, 2018 Strategic Session included a commitment to continue and maintain the program tenants that have been deployed since 2002.

On June 5, 2019 TAMC held another Strategic Planning Session to review TAMC's goals and priorities in light of recent amendments to Public Act 51, including PA 323, PA 324 and PA 325 of 2018. As with the previous session, outcomes of the June 5, 2019 Strategic Session included a commitment to maintain the foundation of the program as well as pursuit of tasks that align TAMC's program with legislative requirements.

Another TAMC Strategic Planning Session was held on September 9, 2020. This session included review of recent amendments to Public Act 51, including Michigan House Bills 4965, House Bill 4966 and House Bill 4971, which would later become PA 152, PA 153 and PA 164 of 2020. Again, outcomes of the 2020 TAMC Strategic Session included a commitment to maintain the foundation of the program as well as pursuit of tasks that align TAMC's program with legislative requirements.

On August 4, 2021 TAMC held another Strategic Planning Session to review the program's goals and priorities, however most of the focus of this meeting was future-focused, with most of the meeting discussing what the next 20 years of TAMC would look like. The image on the right is a list of high-level focus areas in which TAMC members discussed future opportunities and how the program might change. Minutes from this meeting are found in Appendix K.



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TAMC is committed to reviewing priorities, relevant changes in legislation and changes in the transportation landscape. To this end, TAMC will review and update the Work Program on an annual basis.

TAMC Priorities

PA 499 of 2002 created TAMC and established the structure and organizational membership. Additional legislation thereafter increased reporting requirements for local agencies as well as TAMC. TAMC has monitored these changes and has responded with Strategic Work Program updates and priorities to continue progress of the statewide asset management strategy, incorporating updates in technology, industry standards, and changes in public policy and demands for service. The following goals and objectives are the result of TAMC's engagement in these areas during 2018 through 2020.

TAMC Council

Goal 1: Promote the principles of asset management statewide to enhance the productivity of investment in Michigan's roads and bridges through coordination and collaboration among state and local transportation agencies; TAMC will promote and communicate this statewide strategy with the legislature, Michigan Infrastructure Council, State Transportation Commission and other transportation committees.

Objectives

1. Surveying and reporting the condition of roads and bridges by functional classification and legal system ownership categories.
2. Analyzing completed and planned investments in roads and bridges.
3. Supporting the development of appropriate asset management methodologies.
4. Providing education and training on the benefits of asset management principles and procedures.
5. Additional forecasting to create a statewide strategy built on the basis of a mix of fixes.
6. Coordinate/education and communication activities with the Michigan Infrastructure Council and Water Asset Management Council.
7. Share information around the world on asset management practices.

Goal 2: Provide fiscal and budgetary accountability for TAMC's budget appropriation as well as all other supplemental appropriations, funding grants and financial resources.

Objectives

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1. Develop an annual budget categorized by work program activity, regional allocations for technical assistance and data collection, Central Data Storage Agency operations, contractual funding for technical assistance and activity support as well as TAMC-specific activities.
2. Include TAMC budget as part of annual reporting to the Michigan Infrastructure Council, State Transportation Commission and the Michigan legislature.
3. Report financial status of contracts and TAMC budget status on a monthly basis.
4. Create a consistent timeline for TAMC budget submissions and needs to the Michigan Department of Transportation.
5. Create a draft three-year budget plan to match the work program goals.
6. Review and define allocation to our regional partners across the State of Michigan.

Goal 3: Coordination of asset management with Michigan Infrastructure Council and Water Asset Management Council and other partner organizations such as Michigan Department of Transportation, County Road Association, Michigan Municipal League, Michigan Association of Regions, Michigan Transportation Planning Association, Michigan Association of Counties and the Michigan Township Association.

Objectives

1. Develop coordinated approach to condition assessment and other areas when applicable.
2. Communicate with Michigan Infrastructure Council and Water Asset Management Council on transparency and what needs to be coordinated.
3. Attend and monitor Michigan Infrastructure Council meetings.
4. Attend and monitor Water Asset Management Council meetings.
5. Participate on MIC/WAMC/TAMC X-Council (cross council).
6. Support TAMC partner agencies at various trainings, conferences, and workshops.
7. Define the process to seek procurement of TAMC assistance from outside vendors or consultants for coordinated activities.

Goal 4: Evaluate asset management plan submissions and make recommendations regarding compliance.

Objectives

1. Update TAMC asset management plan template accounting for all required elements per PA 325.
2. Provide training and workshops for use of the asset management plan template.
3. Establish TAMC policy for the submittal and review of asset management plans for PA 325 requirements as well as PA 338 of 2006.

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4. Report monthly on the number and compliance status of local agency submittal of asset management plans.
5. Identify technology that may expedite data collection for PA 325 requirements, including the TAMC Investment Reporting Tool application.

TAMC Committee Priorities

The following goals and objectives are the result of TAMC's engagement of current and ongoing activities at the committee level during 2018 through 2021. Many of these objectives have been directed to the appropriate committee by TAMC.

ACE Committee

Goal 1: Evaluate asset management plan submissions and make recommendations regarding compliance for agencies with a minimum of 100 certified miles.

Objectives

1. Recommend TAMC asset management plan template accounting for all required elements per PA 325 and make assessable to public.
2. Provide training and workshops for use of the asset management plan template.
3. Recommend TAMC policy for the submittal and review of asset management plans for PA 325 requirements as well as PA 338 of 2006.
4. Review monthly on the number and compliance status of local agency submittal of asset management plans.
5. Recommend technology that may expedite data collection for PA 325 requirements, including the TAMC Investment Reporting Tool application.
6. Discuss how other infrastructure assets will be considered for future data collection and asset management plan inclusion.

Goal 2: Increase awareness and improve familiarity with TAMC annual report.

Objectives

1. Coordinate press releases and report cover letters in well-orchestrated manner to ensure maximum exposure and accessibility of TAMC members and support staff.
2. Provide summary reports of Michigan's road and bridge conditions by legislative district with distribution of annual report; each legislator receives both conditions for local district as well as statewide summaries found in report.

Goal 3: Raise awareness of asset management principles; promote outstanding agency performance in the area of asset management.

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Objectives

1. Establish an annual schedule and develop 4 articles each year for the Local Technical Assistance Program's *The Bridge* Newsletter.
2. Seek nominations and highlight best practices of organizations and individuals through the TAMC Awards program; develop scoring matrices evaluate and update selection process of award recipients.
3. Coordinate 2 educational conferences per year; incorporate "best practice case-studies" into educational sessions for high-performing agencies to advocate their learning and methods; provide formal presentation of TAMC Award recipients at conferences and in conference materials.
4. Distribute press releases outlining TAMC Awards program recipients.
5. Explore social media platforms.
6. Pilot two 90-second videos.

Goal 4: Ensure TAMC's training programs and policies are appropriate and optimized for ongoing support of TAMC's data collection and reporting requirements; ensure these programs and policies are well-communicated among partnering agencies and participants.

Objectives

1. Continue review and update of TAMC Policy for the Collection of Roadway Surface Condition Data to accommodate technological updates, appropriateness of training certification for qualifying participants and in response to changing or challenging trends in technology or industry needs.
2. Provide monthly Regional Coordinator conference calls from April through December each year for communicating TAMC policies, announcements, training opportunities and provide forum for participants to raise issues and respond to inquiries.
3. Update and maintain TAMC website, TAMC brochure and TAMC training resources as appropriate to incorporate changes in legislation, reporting requirements, TAMC policy and procedures as well as technological advancements.
4. Create a decision-tree/policy which can be utilized to determine when a request for work from the Central Data Storage Agency or other technical supporting staff can be approved at the committee level.
5. Create a training program for culverts and traffic signals, and/or other infrastructure assets.

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Areas of further investigation:

- TAMC Conferences
 - More collaboration and support by TAMC partner organizations would be appreciated to keep the program fresh and relevant, more involvement across state/nation/world.
 - Seek opportunities for partner organizations to have call for presentations and identify more opportunities for inclusion into TAMC events.
- TAMC Bylaws & Committee Structure
 - Explore and discuss role and procedures of technical experts for TAMC committees.
 - Review Open Meetings Act and consideration of TAMC committee meetings.
- TAMP Policy and support staff interactions/transparency with MDOT Act 51 staff in support of Small and Medium sized agencies
 - Determine level of involvement, review, insight for Non-Public Act 325 asset management plans submitted into the TAMC Investment Reporting Tool.
 - Determine if the TAMC Investment Reporting Tool can be used for submittal of all asset management plans regardless of agency size and requirements.

Bridge Committee

Goal 1: Ensure TAMC's transportation asset management plan template, policies and training programs are appropriate and optimized for ongoing support of TAMC's bridge data collection and reporting requirements; ensure these programs and policies are well-communicated among partnering agencies and participants.

Objectives

1. Continue review and update of TAMC Policy for the Collection of Bridge Condition Data to accommodate technological updates and in response to changing trends in technology or changes in Federal and State industry reporting standards.
2. Work with TAMC to ensure TAMC Dashboards and Interactive Map applications are compatible with data structure and reporting standards of the Michigan Bridge Inventory System.
3. Compare and analyze bridge condition data and TAMC Investment Reporting Tool data for planned bridge project data; incorporate TAMC Investment Reporting Tool data into Michigan Department of Transportation's Bridge Forecasting System.
4. Review potential for bridge cost information to be included in the Act 51 Distribution and Reporting System and other applications.

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5. Continue to review submitted transportation asset management plans and TAMC asset management plan template for consistency with Federal and State industry standards and findings from previous transportation asset management plan submittals.

Goal 2: Continue progress of roadway culvert asset management integration building upon lessons learned from 2018 TAMC Local Agency Culvert Inventory Pilot project as well as culvert data collection efforts performed by Michigan Department of Transportation, other transportation agencies and other stakeholder organizations including Water Asset Management Council, Michigan Department of Environment, Great Lakes and Energy and Michigan Department of Natural Resources.

Objectives

1. Develop data governance and standards for roadway culverts.
2. Develop culvert performance metrics for local agency reporting and integration into asset management plans and TAMC technological reporting.
3. Establish TAMC Policy for the Collection of Culvert Condition Data to provide guidance and directives for ongoing culvert inventory updates, condition assessment, and data integration procedures.
4. Provide tools and training for the ongoing collection of roadway culvert inventory and condition assessment.
5. Incorporate culvert inventory and condition data into TAMC Dashboards and Interactive Map applications.
6. Review other agency's culvert information which can be incorporated into inventory for reduction in duplication of effort among Michigan Department of Environment, Great Lakes and Energy and Michigan Department of Natural Resources and Drain Commissioners, etc.

Data Committee

Goal 1: Ensure TAMC's training programs, policies and technological applications are appropriate, current with most recent data and optimized for continuation of TAMC's Federal Aid, Non-Federal Aid and Inventory-Based Rating System data collection efforts; TAMC will continue collecting no less than ½ of Federal-Aid eligible system annually.

Michigan Transportation Asset Management Council 2022 – 2024 Strategic Work Program

Objectives

1. Continue review and update of TAMC Policy for the Collection of Roadway Surface Condition Data to accommodate technological updates.
2. Ensure Framework Base Map, Roadsoft and TAMC Investment Reporting Tool applications are compatible and up-to-date to accept pavement condition data.
3. Report on Road Data Collection progress on a monthly basis during the collection season.
4. Annually perform quality control assessment of pavement condition data collected by rating teams.
5. Develop data for costs-per-mile of data collection.
6. Ensure TAMC's Dashboards, Interactive Map, and Investment Reporting Tool applications are updated routinely with latest available data sets.
7. Identify opportunities to provide technical support and data collection resources for Michigan's smallest road-owning agencies.
8. Study industry examples of pavement condition data gathered through alternative processes.

Goal 2: Ensure TAMC's training programs and Investment Reporting Tool applications are appropriate and optimized for continuation of the annual investment reporting requirements as part of Act 51.

Objectives

1. Ensure Roadsoft, MDOT's Act 51 Distribution and Reporting System and TAMC Investment Reporting Tool applications are compatible and up to date.
2. Monitor Investment Reporting Tool compliance and report compliance status on a monthly basis.
3. Perform quality checks on Investment Reporting Tool data and report on quality of information.
4. Update Average Project Cost data by improvement category on an annual basis.
5. Compare pavement condition data and Investment Reporting Tool planned road project data.
6. Develop an understanding of roadway asset deterioration.
7. Develop means to upload 3-year capital project data into the Investment Reporting Tool from electronic State Transportation Improvement Program and RPA/MPO Transportation Improvement Programs.
8. Develop condition forecasting tool that uses Investment Reporting Tool planned project data.
9. Incorporate pavement warranty data fields into Investment Reporting Tool for ongoing reporting and compliance.

Michigan Transportation Asset Management Council 2022 – 2024 Strategic Work Program

Goal 3: Develop traffic signal asset management integration building upon guidance from traffic signal subject matter experts at MDOT and other local transportation agencies.

Objectives

1. Develop data governance and standards for traffic signals.
2. Develop traffic signal performance metrics for local agency reporting and integration into asset management plans and TAMC technological reporting.
3. Establish TAMC Policy for the Collection of Traffic Signal Data to provide guidance and directives for ongoing inventory updates and data integration procedures.
4. Provide tools and training for the ongoing collection of traffic signal inventories and condition assessments.
5. Incorporate traffic signal inventory data into TAMC Dashboards and Interactive Map applications.

Areas of further investigation:

- Future of Roadway Data Collection Policy and 2021 Pilot adjustments for rating team composition and training requirements.
- Additional Dashboards for Investment Reporting Data.
- Providing Geographic layers of TAMC Data for download.

**Michigan Transportation Asset Management Council
2022 – 2024 Strategic Work Program**

APPENDICES

ACRONYM GUIDE	
ACE	ADMINISTRATION, COMMUNICATION, AND EDUCATION (TAMC COMMITTEE)
ACT-51	PUBLIC ACT 51 OF 1951-DEFINITION: A CLASSIFICATION SYTEM DESIGNED TO DISTRIBUTE MICHIGAN’S TRANSPORTATION FUNDS.
ADARS	ACT 51 DISTRIBUTION AND REPORTING SYSTEM
CDSA	CENTAL DATA STORAGE AGENCY (CURRENTLY CSS)
CRA	COUNTY ROAD ASSOCIATION (OF MICHIGAN)
CSD	CONTRACT SERVICES DIVISION (MDOT)
CSS	CENTER FOR SHARED SOLUTIONS (DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET, STATE OF MICHIGAN)
CTT	CENTER FOR TECHNOLOGY & TRAINING (MICHIGAN TECHNOLOGICAL UNIVERSITY)
DNR	DEPARTMENT OF NATURAL RESOURCES (STATE OF MICHIGAN)
DTMB	DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET (STATE OF MICHIGAN)
EGLE	DEPARTMENT OF ENVIRONMENT, GREAT LAKES & ENERGY (STATE OF MICHIGAN)
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FOD	FINANCIAL OPERATIONS DIVISION (MDOT)
FY	FISCAL YEAR
IBR	INVENTORY-BASED RATING SYSTEM FOR UNPAVED ROADWAYS
IRT	INVESTMENT REPORTING TOOL APPLICATION
LDC	LAPTOP DATA COLLECTOR APPLICATION
LTAP	LOCAL TECHNICAL ASSISTANCE PROGRAM (MICHIGAN TECHNOLOGICAL UNIVERSITY)
MAC	MICHIGAN ASSOCIATION OF COUNTIES
MAR	MICHIGAN ASSOCIATION OF REGIONS
MCL	MICHIGAN COMPILED LAW
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION
MIC	MICHIGAN INFRASTRUCTURE COUNCIL
MML	MICHIGAN MUNICIPAL LEAGUE
MPO	METROPOLITAN PLANNING ORGANIZATION
MTA	MICHIGAN TOWNSHIPS ASSOCIATION
MTF	MICHIGAN TRANSPORTATION FUNDS
MTPA	MICHIGAN TRANSPORTATION PLANNING ASSOCIATION
MTU	MICHIGAN TECHNOLOGICAL UNIVERSITY
NBI	NATIONAL BRIDGE INVENTORY
NBIS	NATIONAL BRIDGE INSPECTION STANDARDS
NFA	NON-FEDERAL AID
NFC	NATIONAL FUNCTIONAL CLASSIFICATION
NHS	NATIONAL HIGHWAY SYSTEM
PA	PUBLIC ACT
PASER	PAVEMENT SURFACE EVALUATION AND RATING
PNFA	PAVED NON-FEDERAL AID
QA/QC	QUALITY ASSURANCE/QUALITY CONTROL
RPA	REGIONAL PLANNING AGENCY
STC	STATE TRANSPORTATION COMMISSION
STIP	STATE TRANSPORTATION IMPROVEMENT PROGRAM
TAMC	TRANSPORTATION ASSET MANAGEMENT COUNCIL
TAMP	TRANSPORTATION ASSET MANAGEMENT PLAN
TIP	TRANSPORTATION IMPROVEMENT PROGRAM
UWP	UNIFIED WORK PROGRAM
WAMC	WATER ASSET MANAGEMENT COUNCIL
X-COUNCIL	CROSS COUNCIL COMMITTEE (MIC/TAMC/WAMC)

Public Act 51 & TAMC Related Legislation Links

All links below are provided by the State of Michigan Legislature's [Michigan Bill Search](#) application, as accessed on December 23, 2020. Public Act 51 of 1951 is the guiding legislation to all roads and highways funding and reporting requirements. The remainder of public acts related to TAMC are amendments to Public Act 51 of 1951 unless otherwise noted.

[Public Act 51 of 1951 – State Trunk Line Highway System](#)

[Public Act 499 of 2002 – Creation of Transportation Asset Management Council](#)

[Public Act 338 of 2006](#)

[Public Act 199 of 2007](#)

[Public Act 257 of 2010](#)

[Public Act 298 of 2012](#)

[Public Act 506 of 2012](#)

[Public Act 323 of 2018](#) – Creation of [Michigan Infrastructure Council](#)

[Public Act 324 of 2018](#) – [Amendment to Public Act 451 of 1994 Natural Resources and Environmental Protection: Creation of Water Asset Management Council](#)

[Public Act 325 of 2018](#)

[Public Act 152 of 2020](#)

[Public Act 153 of 2020](#)

[Public Act 164 of 2020](#)



Bylaws of the Michigan Transportation Asset Management Council

As Last Amended by TAMC on February 5, 2020.

1. Goal Statement: The Transportation Asset Management Council will develop and support excellence in managing Michigan's transportation assets by:
 - a. Advising the legislature, the State Transportation Commission, the Michigan Infrastructure Council, transportation committees, and others.
 - b. Promoting asset management principles.
 - c. Providing tools and practices for road agencies.
 - d. Collaborate and coordinate with Water Asset Management Council and other asset owners.
2. Membership, Chairperson, and Committees:
 - a. Membership: The Transportation Asset Management Council shall consist of ten (10) voting members appointed by the State Transportation Commission. The council shall include two (2) members from the County Road Association of Michigan, two (2) members from the Michigan Municipal League, two (2) members from the state planning and development regions, one (1) member from the Michigan Townships Association, one (1) member from the Michigan Association of Counties, and two (2) members from the Michigan Department of Transportation. Nonvoting members shall include one (1) person from the agency or office selected as the location for central data storage.
 - b. Chairperson and Vice-chairperson: The Chairperson shall be selected from among the voting members of the Transportation Asset Management Council.
 1. Eligibility: All voting members of the Transportation Asset Management Council are eligible to be Chairperson or Vice-chairperson of the Transportation Asset Management Council.
 2. Term of Office: The Chairperson and Vice-chairperson's Terms of Office shall be three (3) years. Officers may be reelected to additional terms by the Transportation Asset Management Council; terms may be consecutive.
 3. Election of Officers: Elections for Chairperson and Vice-chairperson of the Transportation Asset Management Council shall be held during the September meeting in the last year of the three (3) year term or as needed to fill a vacant officer position. Election shall be by a majority vote of the attending voting Transportation Asset Management Council members during a regular Transportation Asset Management Council meeting where a quorum is present.
 4. Responsibility and Dismissal: It is the responsibility of the Chairperson to chair monthly meetings, publicly represent the Transportation Asset Management Council and speak on its behalf. It is the responsibility of the Vice-chairperson to perform these duties in the absence of the Chairperson. If the Chairperson or Vice-chairperson fails to meet this responsibility, the voting membership of Transportation Asset Management Council may dismiss the Chairperson or Vice-chairperson by majority vote.
 - c. Committees: At a minimum, each voting member shall serve on one (1) Transportation Asset Management Council Committee. The Chairperson shall select Transportation Asset

Management Council members for each committee at the beginning of the Chairperson's term of office. Member assignments may be reviewed and changed by the Chairperson as necessary during the Chairperson's term of office. Each committee of the Transportation Asset Management Council shall have a Chairperson and a Vice-chairperson selected by majority vote of the voting membership of each Committee. Each committee Chairperson and Vice-chairperson shall serve a three (3) year term. In the absence of the committee Chairperson, the committee Vice-chairperson shall manage the committee meetings. Any committee may include for support, technical, or other reasons; non-Transportation Asset Management Council members as non-voting advisory participants in the committees. The Transportation Asset Management Council has three permanent committees as follows:

1. Administrative, Communications and Education: Committee comprised of three (3) to five (5) Transportation Asset Management Council members that advises the Transportation Asset Management Council on matters pertaining to training, communications, education and budget.
 2. Data Committee: Committee comprised of three (3) to five (5) Transportation Asset Management Council members that advises the Transportation Asset Management Council on matters pertaining to data collection, quality, and analysis.
 3. Bridge Committee: Committee comprised of three (3) to five (5) Transportation Asset Management Council members that advises the Transportation Asset Management Council on matters pertaining to application of asset management principles to bridges and the creation of guidance materials and training program.
 - d. Michigan Infrastructure Council and Water Asset Management Council: The Chairperson shall represent the Transportation Asset Management Council at regular meetings of the Michigan Infrastructure Council. In the absence of the Chairperson, the Vice-chairperson shall attend Michigan Infrastructure Council meetings. The Transportation Asset Management Council Chairperson and Vice-chairperson shall also represent the Transportation Asset Management Council on any standing coordination committees of the Michigan Infrastructure Council and Water Asset Management Council.
 - e. Other committees: The Chairperson may establish other 'ad hoc' committees as necessary for the operation of the Transportation Asset Management Council. Such committees shall operate until the Transportation Asset Management Council or Chairperson disbands them.
3. Meetings: Transportation Asset Management Council and committee meeting schedules are established at the September Transportation Asset Management Council Meeting for the following calendar year. The established schedules shall be made available to the public.
 4. Quorum: per Michigan's Open Meetings Act, the term "Meeting" means "the convening of a public body at which a quorum is present for the purpose of deliberating toward or rendering a decision of a public policy." A quorum as it pertains to the Transportation Asset Management Council shall be defined as a majority of voting members present for a meeting during which official business is discussed and acted upon.
 5. Membership Appointment and Term: it is the responsibility of each member organization to seek out qualified individuals for nomination to the Transportation Asset Management Council. Once the nomination is received, it must be acted upon by the State Transportation Commission. The positions for the Michigan Department of Transportation shall be permanent. The position of the central data storage agency shall be nonvoting and shall be for as long as the agency continues to serve as the data storage repository. At the end of the initial appointment, all terms shall be for

three (3) years.

6. Advisory Panel: The Transportation Asset Management Council may appoint a technical advisory panel whose members shall be representatives from the transportation construction associations and related transportation road interests. The Transportation Asset Management Council shall select members to the technical advisory panel from names submitted by the transportation construction associations and related transportation road interests. The technical advisory panel members shall be appointed for three (3) years. The Transportation Asset Management Council shall determine the research issues and assign projects to the technical advisory panel to assist in the development of statewide policies. The technical advisory panel's recommendations shall be advisory only and not binding on the Transportation Asset Management Council.
7. Staffing: The Michigan Department of Transportation shall provide qualified administrative staff and the state planning and development regions shall provide qualified technical assistance to the Transportation Asset Management Council.
 - a. Michigan Department of Transportation assigns a full-time Coordinator primarily responsible for the management and coordination of the Transportation Asset Management Council's activities including development of the three (3) year work program, budget, and annual report as required by law; provide project management of activities needed to carry out the Transportation Asset Management Council's work program; manage the on-going development and maintenance of the Transportation Asset Management Council's website and performance measure dashboards. Additional Michigan Department of Transportation staff provides administrative support to the Transportation Asset Management Council as necessary.
 - b. In addition to Michigan Department of Transportation staff, the Transportation Asset Management Council annually contracts with Michigan's Regional and Metropolitan Planning Organizations to provide technical assistance related to the promotion of asset management principles and data collection within each regional boundary.
8. Amendments: A two-thirds majority of Transportation Asset Management Council voting members is required to amend the Transportation Asset Management Council's bylaws. Proposed amendments in final form must be distributed to the members at the Transportation Asset Management Council meeting prior to having it on the Transportation Asset Management Council agenda as an action item.

TAMC Budget Financial Accounting: FY20-FY22



		FY20 Budget			FY20 Year to Date			FY21 Budget			FY21 Year to Date			FY22 Budget			FY22 Year to Date		
		Indicates Contract Completed			Indicates Contract Completed			Indicates Contract Completed			Indicates Contract Completed			Indicates Contract Completed			Indicates Contract Completed		
		(most recent invoice)																	
		\$	Spent	Balance	\$	Spent	Balance	\$	Spent	Balance	\$	Spent	Balance	\$	Spent	Balance	\$	Spent	Balance
I. Data Collection & Regional-Metro Planning Asset Management Program																			
Battle Creek Area Transportation Study	4QTR-21	\$ 20,500.00	\$ 20,346.46	\$ 153.54	\$ 20,500.00	\$ 13,278.96	\$ 7,221.04	\$ 20,500.00	\$ -	\$ 20,500.00	\$ 20,500.00	\$ -	\$ 20,500.00	\$ 20,500.00	\$ -	\$ 20,500.00	\$ 20,500.00	\$ -	\$ 20,500.00
Bay County Area Transportation Study	4QTR-21	\$ 19,900.00	\$ 18,217.13	\$ 1,682.87	\$ 19,900.00	\$ 19,462.55	\$ 437.45	\$ 19,900.00	\$ -	\$ 19,900.00	\$ 19,900.00	\$ -	\$ 19,900.00	\$ 19,900.00	\$ -	\$ 19,900.00	\$ 19,900.00	\$ -	\$ 19,900.00
Central Upper Peninsula Planning and Development	4QTR-21	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00
East Michigan Council of Governments	Nov	\$ 108,000.00	\$ 108,000.00	\$ -	\$ 108,000.00	\$ 66,038.34	\$ 41,961.66	\$ 108,000.00	\$ 5,332.21	\$ 102,667.79	\$ 108,000.00	\$ 5,332.21	\$ 102,667.79	\$ 108,000.00	\$ 5,332.21	\$ 102,667.79	\$ 108,000.00	\$ 5,332.21	\$ 102,667.79
Eastern Upper Peninsula Regional Planning & Devel.	4QTR-21	\$ 25,000.00	\$ 25,000.00	\$ -	\$ 25,000.00	\$ 12,500.37	\$ 12,499.63	\$ 25,000.00	\$ -	\$ 25,000.00	\$ 25,000.00	\$ -	\$ 25,000.00	\$ 25,000.00	\$ -	\$ 25,000.00	\$ 25,000.00	\$ -	\$ 25,000.00
Genesee Lapeer Shiawassee Region V Planning Com.	Sept	\$ 46,000.00	\$ 46,000.00	\$ -	\$ 46,000.00	\$ 20,038.38	\$ 25,961.62	\$ 46,000.00	\$ -	\$ 46,000.00	\$ 46,000.00	\$ -	\$ 46,000.00	\$ 46,000.00	\$ -	\$ 46,000.00	\$ 46,000.00	\$ -	\$ 46,000.00
Grand Valley Metropolitan Council	Sept	\$ 24,000.00	\$ 24,000.00	\$ -	\$ 24,000.00	\$ 23,864.31	\$ 135.69	\$ 24,000.00	\$ -	\$ 24,000.00	\$ 24,000.00	\$ -	\$ 24,000.00	\$ 24,000.00	\$ -	\$ 24,000.00	\$ 24,000.00	\$ -	\$ 24,000.00
Kalamazoo Area Transportation Study	Sept	\$ 22,000.00	\$ 21,249.18	\$ 750.82	\$ 22,000.00	\$ 10,046.13	\$ 11,953.87	\$ 22,000.00	\$ -	\$ 22,000.00	\$ 22,000.00	\$ -	\$ 22,000.00	\$ 22,000.00	\$ -	\$ 22,000.00	\$ 22,000.00	\$ -	\$ 22,000.00
Macatawa Area Coordinating Council	3QTR-21	\$ 19,000.00	\$ 2,357.60	\$ 16,642.40	\$ 19,000.00	\$ 13,855.61	\$ 5,144.39	\$ 19,000.00	\$ -	\$ 19,000.00	\$ 19,000.00	\$ -	\$ 19,000.00	\$ 19,000.00	\$ -	\$ 19,000.00	\$ 19,000.00	\$ -	\$ 19,000.00
Midland Area Transportation Study	4QTR-21	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00	\$ -	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00
Northeast Michigan Council of Governments	July	\$ 51,000.00	\$ 51,000.00	\$ -	\$ 51,000.00	\$ 51,000.00	\$ -	\$ 51,000.00	\$ -	\$ 51,000.00	\$ 51,000.00	\$ -	\$ 51,000.00	\$ 51,000.00	\$ -	\$ 51,000.00	\$ 51,000.00	\$ -	\$ 51,000.00
Networks Northwest	4QTR-21	\$ 75,000.00	\$ 41,099.54	\$ 33,900.46	\$ 75,000.00	\$ 5,993.56	\$ 69,006.44	\$ 75,000.00	\$ -	\$ 75,000.00	\$ 75,000.00	\$ -	\$ 75,000.00	\$ 75,000.00	\$ -	\$ 75,000.00	\$ 75,000.00	\$ -	\$ 75,000.00
Region 2 Planning Commission	3QTR-20	\$ 40,000.00	\$ 13,497.00	\$ 26,503.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00
Saginaw Area Transportation Agency	4QTR-20	\$ 21,000.00	\$ 14,790.13	\$ 6,209.87	\$ 21,000.00	\$ -	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00	\$ 21,000.00	\$ -	\$ 21,000.00
Southcentral Michigan Planning Commission	Sept	\$ 55,000.00	\$ 54,979.20	\$ 20.80	\$ 55,000.00	\$ 15,193.12	\$ 39,806.88	\$ 55,000.00	\$ -	\$ 55,000.00	\$ 55,000.00	\$ -	\$ 55,000.00	\$ 55,000.00	\$ -	\$ 55,000.00	\$ 55,000.00	\$ -	\$ 55,000.00
Southeast Michigan Council of Governments	Sept	\$ 174,000.00	\$ 174,000.00	\$ -	\$ 174,000.00	\$ 174,000.00	\$ -	\$ 174,000.00	\$ -	\$ 174,000.00	\$ 174,000.00	\$ -	\$ 174,000.00	\$ 174,000.00	\$ -	\$ 174,000.00	\$ 174,000.00	\$ -	\$ 174,000.00
Southwest Michigan Planning Commission	4QTR-21	\$ 41,000.00	\$ 39,412.78	\$ 1,587.22	\$ 41,000.00	\$ 14,268.35	\$ 26,731.65	\$ 41,000.00	\$ -	\$ 41,000.00	\$ 41,000.00	\$ -	\$ 41,000.00	\$ 41,000.00	\$ -	\$ 41,000.00	\$ 41,000.00	\$ -	\$ 41,000.00
Tri-County Regional Planning Commission	4QTR-21	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 8,458.00	\$ 31,542.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00
West Michigan Regional Planning Commission	4QTR-20	\$ 88,000.00	\$ 73,951.79	\$ 14,048.21	\$ 88,000.00	\$ -	\$ 88,000.00	\$ 88,000.00	\$ -	\$ 88,000.00	\$ 88,000.00	\$ -	\$ 88,000.00	\$ 88,000.00	\$ -	\$ 88,000.00	\$ 88,000.00	\$ -	\$ 88,000.00
West Michigan Shoreline Regional Development Com.	Nov	\$ 54,000.00	\$ 53,898.70	\$ 101.30	\$ 54,000.00	\$ 33,464.12	\$ 20,535.88	\$ 54,000.00	\$ 269.74	\$ 53,730.26	\$ 54,000.00	\$ 269.74	\$ 53,730.26	\$ 54,000.00	\$ 269.74	\$ 53,730.26	\$ 54,000.00	\$ 269.74	\$ 53,730.26
Western Upper Peninsula Regional Planning & Devel.	4QTR-21	\$ 42,000.00	\$ 42,000.00	\$ -	\$ 42,000.00	\$ 11,942.09	\$ 30,057.91	\$ 42,000.00	\$ -	\$ 42,000.00	\$ 42,000.00	\$ -	\$ 42,000.00	\$ 42,000.00	\$ -	\$ 42,000.00	\$ 42,000.00	\$ -	\$ 42,000.00
MDOT Region Participation & State Vehicle Use	10/28/20	\$ 30,000.00	\$ 9,570.41	\$ 20,429.59	\$ 30,000.00	\$ -	\$ 30,000.00	\$ 30,000.00	\$ -	\$ 30,000.00	\$ 30,000.00	\$ -	\$ 30,000.00	\$ 30,000.00	\$ -	\$ 30,000.00	\$ 30,000.00	\$ -	\$ 30,000.00
PASER Quality Review Contract	8/25/20	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00	\$ -	\$ 50,000.00
Data Collection & Regional-Metro Program Total		\$ 1,116,400.00	\$ 944,369.92	\$ 172,030.08	\$ 1,116,400.00	\$ 564,403.89	\$ 551,996.11	\$ 1,116,400.00	\$ 5,601.95	\$ 1,110,798.05	\$ 1,116,400.00	\$ 5,601.95	\$ 1,110,798.05	\$ 1,116,400.00	\$ 5,601.95	\$ 1,110,798.05	\$ 1,116,400.00	\$ 5,601.95	\$ 1,110,798.05
III. TAMC Central Data Agency (MCSS)																			
Project Management	12/22/21	\$ 64,200.00	\$ 72,225.00	\$ (8,025.00)	\$ 64,200.00	\$ 45,844.73	\$ 18,355.27	\$ 64,200.00	\$ 7,660.00	\$ 56,540.00	\$ 64,200.00	\$ 7,660.00	\$ 56,540.00	\$ 64,200.00	\$ 7,660.00	\$ 56,540.00	\$ 64,200.00	\$ 7,660.00	\$ 56,540.00
Data Support /Hardware / Software	12/22/21	\$ 37,000.00	\$ 28,675.55	\$ 8,324.45	\$ 37,000.00	\$ 23,237.98	\$ 13,762.02	\$ 37,000.00	\$ -	\$ 37,000.00	\$ 37,000.00	\$ -	\$ 37,000.00	\$ 37,000.00	\$ -	\$ 37,000.00	\$ 37,000.00	\$ -	\$ 37,000.00
Application Development / Maintenance / Testing	12/22/21	\$ 166,000.00	\$ 167,217.02	\$ (1,217.02)	\$ 171,250.00	\$ 174,634.38	\$ (3,384.38)	\$ 171,250.00	\$ 44,678.54	\$ 126,571.46	\$ 171,250.00	\$ 44,678.54	\$ 126,571.46	\$ 171,250.00	\$ 44,678.54	\$ 126,571.46	\$ 171,250.00	\$ 44,678.54	\$ 126,571.46
Help Desk / Misc Support / Coordination	12/22/21	\$ 53,250.00	\$ 49,634.15	\$ 3,615.85	\$ 67,360.00	\$ 98,289.56	\$ (30,929.56)	\$ 67,360.00	\$ 8,254.19	\$ 59,105.81	\$ 67,360.00	\$ 8,254.19	\$ 59,105.81	\$ 67,360.00	\$ 8,254.19	\$ 59,105.81	\$ 67,360.00	\$ 8,254.19	\$ 59,105.81
Training	12/22/21	\$ 26,000.00	\$ 18,486.22	\$ 7,513.78	\$ 16,170.00	\$ 9,619.47	\$ 6,550.53	\$ 16,170.00	\$ -	\$ 16,170.00	\$ 16,170.00	\$ -	\$ 16,170.00	\$ 16,170.00	\$ -	\$ 16,170.00	\$ 16,170.00	\$ -	\$ 16,170.00
Data Access / Reporting	12/22/21	\$ 28,500.00	\$ 36,500.00	\$ (8,000.00)	\$ 37,720.00	\$ 23,216.90	\$ 14,503.10	\$ 37,720.00	\$ 6,718.30	\$ 31,001.70	\$ 37,720.00	\$ 6,718.30	\$ 31,001.70	\$ 37,720.00	\$ 6,718.30	\$ 31,001.70	\$ 37,720.00	\$ 6,718.30	\$ 31,001.70
TAMC Central Data Agency (MCSS) Total		\$ 374,950.00	\$ 372,737.94	\$ 2,212.06	\$ 374,950.00	\$ 374,843.02	\$ 106.98	\$ 374,950.00	\$ 67,311.03	\$ 307,638.97	\$ 374,950.00	\$ 67,311.03	\$ 307,638.97	\$ 374,950.00	\$ 67,311.03	\$ 307,638.97	\$ 374,950.00	\$ 67,311.03	\$ 307,638.97
IV. MTU Training & Education Program Contract																			
	12/20/21	\$ 225,000.00	\$ 224,280.94	\$ 719.06	\$ 225,000.00	\$ 158,391.42	\$ 66,608.58	\$ 225,000.00	\$ -	\$ 225,000.00	\$ 225,000.00	\$ -	\$ 225,000.00	\$ 225,000.00	\$ -	\$ 225,000.00	\$ 225,000.00	\$ -	\$ 225,000.00
V. MTU Activities Program Contract																			
	12/20/21	\$ 115,000.00	\$ 115,011.82	\$ (11.82)	\$ 129,464.81	\$ 41,555.09	\$ 87,909.72	\$ 129,464.81	\$ -	\$ 129,464.81	\$ 129,464.81	\$ -	\$ 129,464.81	\$ 129,464.81	\$ -	\$ 129,464.81	\$ 129,464.81	\$ -	\$ 129,464.81
VI. TAMC Expenses																			
Fall Conference Expenses	12/10/19	\$ 10,000.00	\$ -	\$ 10,000.00	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00
Fall Conf. Attendance Fees + sponsorship Fees	12/10/19	\$ -	\$ 6,890.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Fall Conference	12/10/19	\$ 16,890.00	\$ 6,781.90	\$ 10,108.10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Spring Conference Expenses	6/27/19	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00
Spring Conf. Attendance Fees + sponsorship Fees	6/27/19	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Spring Conference	6/27/19	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Unallocated / Contingency		\$ 10,000.00	\$ -	\$ 10,000.00	\$ 20,000.00	\$ -	\$ 20,000.00	\$ 20,000.00	\$ -	\$ 20,000.00	\$ 20,000.00	\$ -	\$ 20,000.00	\$ 20,000.00	\$ -	\$ 20,000.00	\$ 20,000.00	\$ -	\$ 20,000.00
Other Council Expenses (Member Mileage Expenses/Printing/Etc.)	3/12/20	\$ 10,000.00	\$ 2,046.24	\$ 7,953.76	\$ 10,000.00	\$ 161.50	\$ 9,838.50	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ -	\$ 10,

**Transportation Asset Management Council
2022 Roster and Committee Assignments**

TAMC Current Members		Term Status			Committee Assignments			
Member Name	Member Agency	Begin	End	Member Since	ACE	Bridge	Data	Michigan Infrastructure Council
Bradshaw, Derek	MAR	Apr - 19	May - 22	May -16	X			
Buck, Ryan	MTPA	Jan - 21	Dec - 22	Jan -21	X		X	
Johnson, Joanna, Chair	CRA	Apr - 19	May - 22	Oct - 13				X (non voting)
Jones, Kelly	MAC	Nov - 21	Sept - 22	Nov - 21		X		
McEntee, Bill, Vice-Chair	CRA	Dec - 20	Dec - 23	Oct - 02			X	
Mekjian, Gary	MML	Jul - 20	Aug - 23	Mar - 17	X			
Slattery, Bob	MML	Oct - 19	Sep - 22	Jan - 05			X	
Surber, Rob (non-voting)	MCSS	N/A	N/A	Oct - 03	X		X	
Tubbs, Jennifer	MTA	Dec - 19	Dec - 22	Jan - 11			X	
White, Todd	MDOT	N/A	N/A	Jan - 19	X			
Wieferich, Brad	MDOT	N/A	N/A	Jan - 16		X		

Non-TAMC Members with TAMC Committee Assignments				
Member Name	Member Agency	ACE	Bridge	Data
Alan Halbeisen	American Council of Engineering Companies		X	
Rebecca Curtis	Michigan Department of Transportation		X	
Keith Cooper	Michigan Department of Transportation		X	
Wayne Harrall	County Road Association of Michigan		X	
Brian Vilmont	Subject Matter Expert		X	

TAMC Ad-hoc & Sub-committees

TAMC Conference Planning Committee

J. Johnson, B. Slattery, R. Buck, Ed Hug (SEMCOG), Tim Colling (MTU-CTT/LTAP)

MIC-WAMC-TAMC X-Council Group

John Wiess (MIC Chair-GVMC), Erin Kuhn (MIC Vice Chair-WMSRDC) Larry Steckelberg (MIC-Treasury), Joanna Johnson (TAMC Chair-Kalamazoo Co.), Bill McEntee (TAMC Vice Chair), Roger Belknap (TAMC-MDOT), Sue McCormick (WAMC Chair-Great Lakes Water Authority) Cameron Van Wyngarden (Kent County), Beth Lounds (WAMC-EGLE)

TAMC Center For Shared Solutions Work Program

FY22 - CSS Budget Status FY22

as of 12/10/2021

Notes

Identified Budget \$ 374,950.00

Expenditures

Staff Time \$ 67,311.03

HW/SW \$ -

Misc Expenses (AT&T) \$0.00

ETL Processing
(\$4k/month, to be
billed Nov/Dec)

Total Expenditures to Date \$ 67,311.03

Remaining Budget

As of PPE noted above \$ 307,638.97

Approximate Remaining Hours

As of PPE noted above 3,076.39 *estimated at \$100/hr*

Detailed CSS Expenditures	Actual Spend (Manual Entry)	Budgeted Amount (Manual Entry)	Remaining Balance	% Spent
Project Mgmt	\$7,660.00	\$65,093.00	\$ 57,433.00	12%
Data Support	\$0.00	\$44,298.00	\$ 44,298.00	0%
Application Development / Maintenance / Testing	\$44,678.54	\$202,880.00	\$ 158,201.46	22%
Help Desk / Misc Support / Coordination	\$8,254.19	\$26,679.00	\$ 18,424.81	31%
Training	\$0.00	\$14,000.00	\$ 14,000.00	0%
Data Access / Reporting	\$6,718.30	\$22,000.00	\$ 15,281.70	31%
<i>*These amounts are estimates based on SIGMA Activity Reporting by Staff</i>				
Total	\$67,311.03	\$374,950.00	\$307,638.97	18%

Tasks CSS has been assigned by TAMC:

Additional application upgrades – the ADARS people are handling this.

STIP integration

MGF Portal

Signal Inventory

Technology Refresh - Job Script is going to be unsupported soon and CSS will need to modify this and make changes to website

ADA Review and Usability Testing has taken a lot of hours

Administrative Support - Preparation of Reports, etc.

Provide eight (8) training webinars

Dashboard Maintenance

Culvert Work

Proposal Title:**2022 Transportation Asset
Management Council Education
Program Work Plan****Submitted To:**

Roger Belknap
Bureau of Transportation Planning Michigan
Department of Transportation
belknapr@michigan.gov

Principal Investigator:

Tim Colling, PhD, PE
Director – Center for Technology & Training
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Houghton, MI 49931
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906-487-2102

Co-Principal Investigators:

Pete Torola, PE
Research Engineer II
pjtorola@mtu.edu

Chris Gilbertson PhD, PE
Associate Director – Center for Technology &
Training
cggilber@mtu.edu

Contracting Authority:

Kelly Kallio
Director of Government Sponsored Programs
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931
(906) 487-2226
(906) 487-2245 fax
rsch@mtu.edu

Date Submitted:

November 18, 2021



Michigan Technological University
**Civil, Environmental, and
Geospatial Engineering**



**Michigan
Technological
University**

Sponsored Programs Office

Lakeshore Center, 3rd Floor
1400 Townsend Drive
Houghton, Michigan 49931-1295
906-487-2226 • Fax 906-487-2245

November 18, 2021

Via e-mail: belknapr@michigan.gov

Roger Belknap
Michigan Department of Transportation
Bureau of Transportation Planning
P.O. Box 30050
Lansing, MI 48909

RE: Michigan Tech Proposal #2111077, entitled, "2022 Transportation Asset Management Council Education Program," directed by Dr. Timothy Colling.

Dear Mr. Belknap,

Michigan Technological University is pleased to submit the attached proposal for your review and consideration.

If you have any technical questions, please contact Dr. Colling at (906) 487-2102 or by email at tkcollin@mtu.edu. For all other questions, please contact Jennifer Bukovich, Sr. Sponsored Programs Analyst, at (906) 487-2226 or by e-mail at sponsored-programs-l@mtu.edu.

Sincerely,

Kelly M. Kallio
Director of Government Sponsored Programs

KMK/jb

Attachments

cc: T. Colling

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1.0 INTRODUCTION

The Michigan Transportation Asset Management Council (TAMC) began delivering its education program and providing technical services in 2004. Since that time, Michigan Technological University has assisted with the TAMC Education Program and continues to be a logical choice for assisting with this program because of its Center for Technology & Training (CTT). The CTT is part of the Department of Civil, Environmental, and Geospatial Engineering (CEGE) and is located on Michigan Technological University's campus, which offers a wide array of resources for this project. The CTT houses various state- and federal-funded programs. For example, CTT projects funded by the Michigan Department of Transportation (MDOT) include the Michigan Local Technical Assistance Program (LTAP), Roadsoft, Michigan Engineer's Resource Library (MERL), and Michigan Local Bridge Load Rating and Inspection Support and Technology Transfer programs. Additionally, the CTT houses the federally-funded Environmental Protection Agency's Region 5 environmental finance center—the Great Lake Environmental Infrastructure Center (GLEIC). This array of programs economizes upon professional, development, and support staff to make project delivery cost effective and time efficient. The CTT focuses its efforts specifically on projects related to local government agencies and transportation.

In 2014, the State of Michigan required continuing education hours (CEH) for professional engineers to maintain their licenses. As an education institution, the Michigan LTAP is in the position to provide CEH for professional engineers. Alongside this ability, the Michigan LTAP can encourage the appropriate TAMC classes as a means for maintaining licensure.

One of the prime challenges of effectively working with the over 600 local agencies in Michigan is keeping accurate contact information. The ability of the Michigan LTAP to contact local agency staff through e-mail, phone, and direct mail can provide a major benefit to programs that are targeted at Michigan's local agencies, like TAMC's training efforts. The Michigan LTAP maintains a state-of-the-art contact and event management database, which makes advertising and participant registration for local agency training events a very simple, cost-effective process. In addition, because LTAP is a nationally recognized program working to educate local agencies, events advertised through the Michigan LTAP can take advantage of state and national agreements between partner organizations—such as County Road Association (CRA) of Michigan, National Association of County Engineers (NACE), National Association of Counties (NACO), Michigan Township Association (MTA), American Council of Engineering Companies (ACEC), and Michigan Municipal League (MML)—for access to their contact databases. These agreements allow the Michigan LTAP access to these partner organization mail lists at no cost. Access to these same mail lists outside of LTAP partner organization agreements can have a substantial cost, sometimes as high as \$0.10 to \$0.20 per contact.

Events that are co-sponsored with the Michigan LTAP benefit by utilizing the wealth of local agency contact information that is stored in the Michigan LTAP contact and event management system and from the no-cost access to Michigan LTAP partner organization mail lists. They also benefit by taking advantage of the infrastructure that the Michigan LTAP has for registering and invoicing participants, event tracking, and training records retention. By not duplicating these efforts, the arrangement results in an economy of scale through cooperation among programs that educate local agency transportation staff.

Since its inception, the TAMC training program has been and continues to be coordinated as a co-sponsored training event with the Michigan LTAP.

2.0 TAMC WORK PLAN GUIDELINES

The tasks for this proposal were identified from educational priorities outlined by TAMC in the *TAMC Strategic Work Program for 2021-2023* and are referenced to the appropriate items in the most recent version of that document.

The current training work plan is proposed as a mix of web-based and in-person events, however should Covid-19 restrictions preclude in-person training, or staffing shortages limit the availability of event venues, the events will be converted to the appropriate web-based format and offered as they were offered in 2021.

3.0 WORK PLAN

This work plan and budget is for the period beginning January 1, 2022 and ending December 31, 2022. The project total is approximately \$210,658. A detailed cost estimate is provided in Appendix A.

- Task 1: Assist in Coordinating the Michigan Transportation Asset Management Conferences
- Task 2: Conduct Michigan Compliance Plan Webinar and Associated Technical Support
- Task 3: Conduct Introduction to Transportation Asset Management for Local Officials and Gravel Basics for Local Officials Training
- Task 4: Conduct Michigan Transportation Asset Management Council PASER Training
- Task 5: Conduct Inventory Based Rating™ Training
- Task 6: Conduct Michigan Bridge Asset Management Workshop
- Task 7: Conduct Workshop on Creating Pavement Asset Management Plans
- Task 8: Project Management and Reporting

A nominal registration fee will be assessed to participants for attending training events delivered under this program consistent with Michigan LTAP policy. Registering and failing to show at an event per Michigan LTAP cancellation policy will result in a fee for participants. Registration fees are calculated to break even for on-site expenses, which include consumables that participants use or take with them (such as facility rental, webinar and phone line expenses, food and refreshments, handouts, and rental of audio-visual equipment). Registration fees help to offset the load on the program for on-site activities. The absence of a registration fee (i.e., free training) has been shown to increase no-shows and decrease attendance at training programs because it is assumed that “free” training has some other profit motive and requires no commitment on the part of the participant.

Participants in training events offered under this program will be issued certificates of completion for continuing education hours (CEH) required for maintaining a Michigan professional engineer license where applicable. Every attempt will be made to ensure that trainings provided in this program are eligible for CEH credit for attendees.

3.1 Task 1– Assist in Coordinating the Michigan Transportation Asset Management Conferences

ACE Committee Goal 3, Objective 3: Educational Conferences

CTT staff will participate in organizing both conferences, including participation in organization meetings, distribution of promotional material, handling of participant registration, printing of folder handouts, active facilitation of the conferences, and provision of on-site audiovisual and logistical support. CTT staff will also record audio and screen captures of presentations, which will be built into a format that can be streamed over the web.

CTT staff will collect the registration fee set by TAMC, mail invoices, and return collected fees back to TAMC to defray on-site and facility expenses.

3.2 Task 2– Conduct Michigan Compliance Plan Webinar and Associated Technical Support

Full Council Goal 1, Objective 3: Supporting the development of asset management methodologies.

This task consists of presenting four webinar sessions on the Michigan Asset Management Compliance plan. This webinar assists local agencies with completing their statutorily required asset management plans using TAMC’s templates. Following the webinars CTT will plan to

provide technical assistance to local agencies in completing their plan. Priority will be given to local agencies with the earliest plan due dates.

The currently planned events are:

Conduct two, three-hour webinars spring/summer 2022

Conduct two, three-hour webinars September 2022

3.3 Task 3– Conduct Introduction to Transportation Asset Management for Local Officials and Gravel Road Basics for Local Officials Training

Full Council Goal 1, Objective 3: Supporting the development of asset management methodologies

This task includes presentation of five sessions of either Asset Management for Local Officials which has been offered for several years running and focuses on management of paved roads, or Gravel Roads Basics for Local Officials, which was developed and piloted in 2018 and focuses on unpaved roads. The five sessions will be offered in any combination of these two classes that local agencies request.

Historically TAMC local elected officials training has been offered at a local agency office, with that agency offering to “host” the event. Hosted training events typically target the elected officials in the immediate jurisdictions. Hosted training events will be delivered during morning, afternoon, evening, or virtually as the site’s host agency expresses interest. In addition to hosted sessions, several “open enrollment” sessions will be planned that are not associated with a host agency. Open enrollment events will be advertised to all elected officials statewide.

This budget includes facility costs (if any), handouts, participant registration, CTT instructor time, and travel costs. This budget does not include any reimbursement for participants, RPO coordinators, TAMC members, or TAMC staff. Host agencies are responsible for break refreshments.

The currently planned events are:

Conduct five workshop sessions at approximately three-hours each.

3.4 Task 4 – Conduct TAMC PASER Training

Full Council Goal 1, Objective 1: Surveying and reporting the condition of roads and bridges

The presentation material will be updated to reflect data collected in 2021, quality review rating results, and any changes in legislation and TAMC policies. Training will also be further

adapted to the use of audience response systems (I-Clickers) based on the continued success of the usage of this technology. This technology was found to engage attendees, provide instant and accurate feedback, and produce data that can be used to further assess training techniques.

The 2021 training sessions were conducted virtually and they were received very well by the attendees. The intended delivery mode for the 2022 training sessions will be a mix of virtual and on-site training sessions. It may be difficult to locate a venue for the on-site sessions; however, the goal is to have two or three sessions distributed throughout the lower peninsula and have one in the upper peninsula.

Training dates will be coordinated with TAMC's data collection start date. TAMC needs to notify the CTT of any changes in its collection training requirements and policy by December 1, 2021 due to the long timeline to secure training facilities and to notify attendees of the new requirements. It is otherwise assumed that start dates and training policy will remain the same as the last approved start dates and policy. It is possible to switch on-site events for remote events to meet the TAMC requirements of a new or modified collection policy, however, cancelations of scheduled on-site events may result in facility cancellation fees which are the responsibility of the project.

This task includes facility costs (if any), printing and distribution of handouts, purchase of PASER Manuals, participant registration, CTT instructor time, and travel costs. This task does not include any reimbursement for participants, RPO coordinators, TAMC members, or TAMC staff.

This task includes the distribution of the Local Agency Asset Management Survey, which will be delivered in its current format to all local agency participants at the on-site and virtual PASER and Inventory Based Rating™ training sessions.

This task is budgeted for traditional on-site delivery of PASER training in accordance with TAMC's historical collection policy and training schedule. However, it is recommended that TAMC pursue a mixed mode approach next year to further investigate learning preferences of the audience.

CTT would recommend the following mixed mode delivery should TAMC change its collection and training policy:

Web Delivered PASER Training:

Conduct three PASER webinar series (3 consecutive days at 2 hours each day) covering all aspects of PASER training. This series would be very similar to the web-based training that was offered as a pilot in 2021.

In Person Delivered PASER Training:

Conduct four half-day on-site PASER training sessions in locations that minimize the drive time for participants that want to attend in person. Tentatively this could include the Detroit Metro area, Grand Rapids area, Gaylord or other Northern Lower Peninsula location and one Central Upper Peninsula location

RPO and MPO PASER Collection Mechanics:

Conduct one, two-hour webinar for planning organizations on using the Roadsoft data process.

3.5 Task 5 – Conduct Inventory Based Rating™ Training

Full Council Goal 1, Objective 1: Surveying and reporting the condition of roads and bridges.

The Inventory Based Rating™ (IBR) system for unpaved roads was developed in 2015 at the request of the TAMC. In 2016, the tools in Roadsoft were released to allow agencies to collect and analyze unpaved road condition data efficiently. In 2017, the TAMC adopted a data collection policy, which included mandatory collection of the IBR data for unpaved roads on the federal aid eligible road system that took effect in 2018. In order to collect this data, it will be necessary to train raters who are part of a collection effort that consists of gravel roads.

This task will update and deliver training that will allow local agencies to make consistent use of the tools and systems that TAMC has developed over the years for unpaved roads and will allow them to collect data for their own use and for reporting to TAMC.

The currently planned events are:

Update and conduct three, one-hour webinars on use of the IBR system for rating unpaved roads.

3.6 Task 6 – Conduct Michigan Bridge Asset Management Training Series

Full Council Goal 3, Objective 2: Provide training for asset management template.

The Bridge Asset Management Training Series includes a two-part webinar series (each two-hours long) on the principles of bridge asset management and a four-part virtual workshop series (two-hour sessions with up to 30 minutes of instruction followed by time for questions while working through the process) that provide participants with a true hands-on approach. The workshop was piloted in a virtual format out of necessity in 2020 but that format proved to be an effective approach for this training as it allows the participants direct access to training and technical assistance while being surrounded by all the information needed to develop their asset management plans. Participants no longer step through creating their asset management

plans only to have to redo large portions due to leaving data back at their offices; instead, the virtual workshop enables them to have access to all their data during the training event, better guaranteeing that they will produce a draft asset management plan at the conclusion of the training. The virtual workshop is spread out over four two-hour sessions to allow agencies time to create their content before the class moves on to the next step in the process.

This task will provide time and expenses for a CTT instructor to present the training (two introductory webinars and the four-part virtual workshop series) on two occasions. This task does not include a budget for reimbursement for participants, RPO coordinators, TAMC members, or TAMC staff, or for any revision, editing, or enhancements to handouts or presentation material.

The currently planned events are:

Conduct two offerings of the complete training series (a two-part introductory webinar and a four-part virtual workshop).

3.7 Task 7: Conduct Workshop on Creating Pavement Asset Management Plans

Full Council Goal 3, Objective 2: Provide training for asset management template.

This task consists of presenting four full-day sessions of the Pavement Asset Management Plan Workshop and two, two-hour webinars on how to define their network in preparation for the Pavement Asset Management Plan Workshop. The Pavement Asset Management Plan Workshop was developed and piloted in 2017. Public Act 325 of 2018 makes asset management plans compulsory. Asset management plans are positive signs of implementation of asset management principles at an agency level and are considered a best practice.

This task will provide time and expenses for CTT instructors to present the webinars and workshops and update the training materials from feedback received by participants. This task also provides technical support for local agencies that have completed the workshop while working with the data-parsing tools developed for this workshop.

The currently planned events are:

Conduct two offerings of the complete training series (a two-part virtual workshop followed by one or two half day working sessions). One of the series may also be offered in person should student need dictate.

3.8 Task 8: Project Management & Reporting

Full Council Goal 2: Provide fiscal and budgetary accountability for TAMC. (see Appendix A).

This effort covers all management of the project, project reporting, project-specific interaction with Michigan Tech administration, and relations with the sponsor.

Monthly Reports

Monthly progress reports will include a list of trainings conducted (date, location) and an estimate of percent completion by task. Estimates of percent complete are based on aggregate hours worked—not based on budget expended—so these estimates are not intended to be used for auditing invoices by the sponsor.

Quarterly Reports

Quarterly progress reports will include trainings conducted (date, location), a cumulative list of training participants, and an estimate of percent completion by task (these estimates will not be used for auditing invoices). Quarterly reports will be submitted in place of a monthly report by the last day of the month following the end of the calendar quarter.

Annual Training Report

At the end of each calendar year, CTT staff will compile a comprehensive report that will summarize the performance of all TAMC training events. The report will include historical attendance figures as compared to the current year, spatial summary maps of attendees for the TAM conferences, and feedback received from participant evaluations.

Annual Survey of Local Agency Asset Management Implementation Report

Following the completion of PASER training, CTT staff will compile a comprehensive training report that will summarize the results of the Local Agency Asset Management Survey collected during the annual PASER and IBR trainings and will compare current and historical results.

4.0 KEY PERSONNEL

Tim Colling, PhD, PE, Director – PI

Pete Torola, PE, Research Engineer II – Co-PI

Chris Gilbertson, PhD, PE, Associate Director – Co-PI

Names of Employees and Positions for this Service

Allison Berryman, Sr. Business/Training Support Specialist

Chris Codere, Sr. Project Manager, Training & Operations

Jacob Coulson, Programmer/IT Specialist

Cynthia Elder, Workshop Coordinator

Zach Fredin, PE, Research Engineer I

Victoria Sage, MS, Technical Writer

APPENDIX A: BUDGET AND COST DERIVATION MDOT FORM 5101A-1

The signed MDOT Priced Proposal is attached to this proposal as a separate document.

APPENDIX B: PAYROLL VERIFICATION



PAYROLL VERIFICATION

Michigan Department of Transportation

"2022 Transportation Asset Management Council Technical Education Program"

Principal Investigator: Timothy Colling

<u>Personnel</u>	<u>Current Hourly/Annual Rate:</u>
Timothy Colling	\$ 69.25 / \$144,033.25
Allison Berryman	\$ 24.60 / \$ 51,162.30
Christine Codere	\$ 37.59 / \$ 78,195.54
Jacob Coulson	\$ 24.01 / \$ 49,950.00
Cynthia Elder	\$ 20.19 / \$ 42,000.00
Zachary Fredin	\$ 33.36 / \$ 69,390.60
Christopher Gilbertson	\$ 51.28 / \$106,664.00
Victoria Sage	\$ 30.19 / \$ 31,397.60
Peter Torola	\$ 40.03 / \$ 83,268.64

Name Susan McDaniel
Title and Department Office Assistant, Payroll Services
Michigan Technological University

Date 11/18/2021

PRICED PROPOSAL COVER SHEET

This form replaces a traditional cover letter, and must have a signature by an authorized legal signer. This form is required for all priced proposals, and shall be the very first page(s). This priced proposal is a binding document and no further Consultant signature(s) will be required if an authorization is issued, rather than a contract.

This form shall be completed by each consultant that has a derivation of cost sheet as part of this priced proposal. Traditional cover letters are not required, but may be added after this Priced Proposal Cover Sheet(s).

PROJECT INFORMATION

MDOT CONTROL SECTION(S) – JOB NUMBER(S):

CS - JN

CONTRACT / AUTHORIZATION NUMBER:

PROJECT DESCRIPTION:

2022 Transportation Asset Management Council Education Program

BASIS FOR REIMBURSEMENT AND METHOD OF PAYMENT as specified in the MDOT Scope of Services (*Actual Cost, Actual Cost Plus Fixed Fee, Loaded Hourly Rate, Unit Price, Lump Sum, and Milestones*) When applicable, list ALL Consultant(s) performing work on this project and the basis for reimbursement and method of payment for each.) **Example: Actual Cost Plus Fixed Fee: (Each firm init.)**

Actual Cost (AC)

MTU

PREQUALIFICATION CLASSIFICATION(S) (When applicable, list ALL Consultant(s) performing work on this project and all classification(s) in which they will be working. Use current MDOT classification names.) **Example: Design: Roadway: (Each firm init.)**

TAMC Education Program Activities

MTU

PRIME CONSULTANT INFORMATION

LEGAL BUSINESS NAME:

Michigan Technological University

FEDERAL ID NUMBER: (*Must match prequalification*)

386005955

ROLE: (Prime, Tier 1, Tier

Prime Firm

COMPANY ADDRESS:

1400 Townsend Dr.

CITY:

Houghton

STATE:

MI

ZIP CODE:

49931

EMAIL (AUTHORIZED CONTRACT SIGNER):

rsch@mtu.edu

PHONE NO.:

9064872226

EMAIL (FOR SIGNED CONTRACT DISTRIBUTION):

rsch@mtu.edu

By signature on this form, the consultant agrees that information provided in the consultant priced proposal does not contradict the scope of services or violate the contract terms and conditions.

AUTHORIZED LEGAL SIGNER: (Printed Name - Title)

**Kelly Kallio
Director, Government Sponsored
Programs**

DIGITAL SIGNATURE AND DATE:

**DOCUMENT OF CHANGES TO THE MDOT
SCOPE OF SERVICES**

This form is for use during the contract approval process and shall be attached anywhere the MDOT Scope of Services is used, such as in a contract exhibit. The MDOT Project Manager (PM) shall complete this form to document any changes (or verify no change) to an MDOT Scope of Service previously used for advertisement and for consultant selection that has been changed through, for example, the contract negotiation process or the scope verification meeting. This form is not required when a PM is requesting additional services through a revision or amendment to an agreement.

PROJECT INFORMATION

MDOT CONTROL SECTION(S) – JOB NUMBER(S): CS - JN	CONTRACT / AUTHORIZATION NUMBER: 0								
PRIME CONSULTANT NAME: Michigan Technological University	PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Education Program								
Box A. <input type="checkbox"/> No changes have been made. If you selected one of the following, please complete Box B. <input type="checkbox"/> Changes have been made - pages are attached <input type="checkbox"/> Changes have been made - pages are <u>not</u> attached	Box B. (Select all that apply): <table border="1"><tr><td><input type="checkbox"/></td><td>Changes include a major adjustment in the project limits.</td></tr><tr><td><input type="checkbox"/></td><td>Changes do not include a major adjustment in the project limits.</td></tr><tr><td><input type="checkbox"/></td><td>Changes affect the engineer's estimate.</td></tr><tr><td><input type="checkbox"/></td><td>Changes do not affect the engineer's estimate.</td></tr></table>	<input type="checkbox"/>	Changes include a major adjustment in the project limits.	<input type="checkbox"/>	Changes do not include a major adjustment in the project limits.	<input type="checkbox"/>	Changes affect the engineer's estimate.	<input type="checkbox"/>	Changes do not affect the engineer's estimate.
<input type="checkbox"/>	Changes include a major adjustment in the project limits.								
<input type="checkbox"/>	Changes do not include a major adjustment in the project limits.								
<input type="checkbox"/>	Changes affect the engineer's estimate.								
<input type="checkbox"/>	Changes do not affect the engineer's estimate.								

For Construction Engineering projects, an Expectations Meeting was held with the Consultant as required by the MDOT Construction Manual. This meeting was held on the following date:

DATE:

LIST SPECIFIC ADDITIONS, DELETIONS, AND/OR CHANGES IN THE MDOT SCOPE OF SERVICES

I certify that all of the above additions, deletions, and/or changes have been incorporated within the advertised MDOT Scope of Services, as amended.

AUTHORIZED LEGAL SIGNER: (Printed Name - Title) Kelly Kallio Director, Government Sponsored Programs	DIGITAL SIGNATURE AND DATE:
MDOT PROJECT MANAGER: Roger Belknap	DIGITAL SIGNATURE AND DATE:

CERTIFICATION OF OVERHEAD COST RATE

- This Certification is required per U.S. Department of Transportation, Federal Highway Administration (FHWA) Order 4470.1A, and dated October 27, 2010. FHWA has issued this new policy to be **effective January 1, 2011**, requiring consultants provide certification that costs used to establish overhead cost rates for Federal-aid engineering and design related services contracts do not include any costs which are expressly unallowable; and that the overhead cost rate was established only with allowable costs.

- This certification is to provide assurance that the overhead costs rate was calculated in accordance with the applicable cost principles contained in the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR) Part 31.

- This form shall be completed and submitted by the prime consultant and each subconsultant (first and second tier subconsultant(s)) that have a derivation of cost sheet as part of this priced proposal where an overhead rate was proposed. Please note that the Certifying Official is defined as the firm's Executive (President, Vice President or equivalent) or Chief Financial Officer.

PROJECT INFORMATION

MDOT CONTROL SECTION(S) – JOB NUMBER(S):

CS - JN

CONTRACT / AUTHORIZATION NUMBER:

PROJECT DESCRIPTION:

2022 Transportation Asset Management Council Education Program

DECLARATION OF CERTIFICATION

OVERHEAD COST RATE:

35.75%

DATE MDOT ACCEPTED OVERHEAD COST RATE:

4/8/2021

FISCAL YEAR COVERED FOR RATE CALCULATION:

7/1/2021

to

6/30/2024

I, the undersigned, certify that I have reviewed the overhead rate calculation for the fiscal period as specified above and to the best of my knowledge and belief:

1.) All costs included to establish the above overhead cost rate are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) of title 48, Code of Federal Regulations (CFR), part 31.

2.) This overhead cost rate does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR 31.

Has the firm been approved to use the SAFE HARBOR INDIRECT COST RATE of 110% with the understanding that the Safe Harbor Rate will be used for the life of the agreement?

N

All known material transactions or events that have occurred affecting the firm's ownership, organization and overhead cost rates have been disclosed. All supplied wage rates contained within this submittal are true, accurate, and compliant with the guidelines established by 48 CFR 31.201-3.

CONSULTANT INFORMATION

LEGAL BUSINESS NAME:

Michigan Technological University

FEDERAL ID NUMBER: (Must match prequalification file)

386005955

ROLE: (Prime/Tier 1/Tier 2)

Prime Firm

COMPANY ADDRESS:

1400 Townsend Dr.

CITY:

Houghton

STATE:

MI

ZIP CODE:

49931

EMAIL (AUTHORIZED CONTRACT SIGNER):

rsch@mtu.edu

PHONE NO.:

9064872226

EMAIL (FOR SIGNED CONTRACT DISTRIBUTION):

rsch@mtu.edu

By signature on this form, the consultant agrees that information provided in the consultant priced proposal does not contradict the scope of services or violate the contract terms and conditions.

CERTIFYING OFFICIAL: (Printed Name - Title)

Kelly Kallio
Director, Government Sponsored Programs

DIGITAL SIGNATURE OF CERTIFYING OFFICIAL AND DATE:

MDOT CONTROL SECTION(S) - JOB NUMBER(S):

CONTRACT / AUTHORIZATION NUMBER:

PROJECT DESCRIPTION:	
----------------------	--

PROJECT DESCRIPTION:
2022 Transportation Asset
Management Council Education
Program

Consultant	Firm Role:	Contracted to:	Payment Method:	Job Number	Job Number	Job Number	Job Number	DBE (Y/N)	Total	% of Contract
HOURS				2,385	-	-	-		2,385	
Michigan Technological University	P	MDOT	AC	2,385	-	-	-		2,385	
LABOR				\$ 90,792.40	\$ -	\$ -	\$ -		\$ 90,792.40	
Michigan Technological University	P	MDOT	AC	\$ 90,792.40	\$ -	\$ -	\$ -		\$ 90,792.40	
OVERHEAD				\$ 32,458.28	\$ -	\$ -	\$ -		\$ 32,458.28	
Michigan Technological University	P	MDOT	AC	\$ 32,458.28	\$ -	\$ -	\$ -		\$ 32,458.28	
OTHER DIRECT EXPENSES				\$ 87,407.47	\$ -	\$ -	\$ -	\$ 87,407.47		
Michigan Technological University	P	MDOT	AC	\$ 87,407.47	\$ -	\$ -	\$ -	\$ 87,407.47		
TOTAL COSTS SUMMARY										
Consultant Totals	Firm Role:	Contracted to:	Payment Method:	Job Number	Job Number	Job Number	Job Number	DBE (Y/N)	Total	% of Contract
Michigan Technological University	P	MDOT	AC	\$ 210,658.15	\$ -	\$ -	\$ -	N	\$ 210,658.15	100.0%
Firm Role Key: P = Prime Firm, T1 = Tier 1 Sub, T2 = Tier 2 Sub										
TOTAL COSTS				\$ 210,658.15	\$ -	\$ -	\$ -		\$ 210,658.15	100.0%

DERIVATION OF PRIME CONSULTANT COSTS

Exhibit B

Summary of all Prime Costs for ALL JOB NUMBERS (including phases) for all services provided. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN	CONTRACT / AUTHORIZATION #:	FIRM ROLE: Prime Firm
PRIME CONSULTANT NAME: Michigan Technological University	PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Education Program	

PRIME LABOR:

CLASSIFICATION	CODE	HOURS	x	RATE/HR	=	LABOR COST
Programmer/IT Specialist		20	x	\$ 24.01	=	\$ 480.20
Director		360	x	\$ 69.25	=	\$ 24,930.00
Associate Director		105	x	\$ 51.28	=	\$ 5,384.40
Technical Writer		515	x	\$ 30.19	=	\$ 15,547.85
Research Engineer II		390	x	\$ 40.03	=	\$ 15,611.70
Research Engineer		380	x	\$ 33.36	=	\$ 12,676.80
Sr. Project Manager, Training & Ops		200	x	\$ 37.59	=	\$ 7,518.00
Sr. Business/Training Support Specialist		60	x	\$ 24.60	=	\$ 1,476.00
Event Specialist		355	x	\$ 20.19	=	\$ 7,167.45
Total Hours:		2385			Total Labor	\$ 90,792.40

PRIME OVERHEAD: (Total Labor x Overhead Rate)

Overhead Rate:	35.75%	Total Overhead	\$ 32,458.28
----------------	---------------	----------------	---------------------

PRIME OTHER DIRECT EXPENSES: (List each item once at Actual Cost - NO MARKUP.)

Items	Quantity	@	Unit Price	Unit	=	Item Price
Facility/Room Rental	13.00	@	\$ 400.000	Avg.	=	\$ 5,200.00
Mileage (MTU Motorpool)	12,850.00	@	\$ 0.560	Mile	=	\$ 7,196.00
Lodging	54.00	@	\$ 75.000	Night	=	\$ 4,050.00
Per Diem	69.00	@	\$ 55.000	Day	=	\$ 3,795.00
Webinar Expenses	17,250.00	@	\$ 0.080	Minute	=	\$ 1,380.00
Mail Charges	1.00	@	\$ 600.000	Annual	=	\$ 600.00
Print/Copy Charges	23,000.00	@	\$ 0.150	Page	=	\$ 3,450.00
Long Distance Telephone	2,000.00	@	\$ 0.020	Minute	=	\$ 40.00
Fringe Benefits - Prof	90,792.40	@	\$ 0.426	Dollar	=	\$ 38,677.56
ODC Overhead	64,388.56	@	\$ 0.358	Dollar	=	\$ 23,018.91
Total Other Direct Expenses						\$ 87,407.47

TOTAL PRIME FIRM COSTS \$ 210,658.15

Firm Role: Prime Firm

Note: Payment Method = AC

SUMMARY OF PERSON HOURS BY PPMS TASK

EXHIBIT D

All Prime and Subconsultant Hours for EACH JOB NUMBER (including phases). For amendment/revision, complete this form showing all job numbers for all services provided. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN	CONTRACT / AUTHORIZATION NUMBER:
PRIME CONSULTANT NAME: Michigan Technological University	PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Education Program

SUMMARY OF HOURS BY PPMS TASK

PPMS Task Code	Task Description	Firm Init.	MDOT JN	MDOT JN	MDOT JN	MDOT JN	Total
4110	Task 1: Assist in Coordinating the Michigan TAMC Co	Total	290	-	-	-	290
		MTU	290	-	-	-	290
4120	Task 2: Conduct Michigan Compliance Plan Webinar a	Total	150	-	-	-	150
		MTU	150	-	-	-	150
4130	Task 3: Conduct Introduction to Transportation AM fo	Total	240	-	-	-	240
		MTU	240	-	-	-	240
4140	Task 4: Conduct TAMC PASER Training	Total	670	-	-	-	670
		MTU	670	-	-	-	670
4150	Task 5: Conduct Inventory Based Rating Training	Total	195	-	-	-	195
		MTU	195	-	-	-	195
4160	Task 6: Conduct Michigan Bridge Asset Management	Total	420	-	-	-	420
		MTU	420	-	-	-	420
4170	Task 7: Conduct Workshop on Creating Pavement Ass	Total	300	-	-	-	300
		MTU	300	-	-	-	300
4180	Task 8: Project Management & Reporting	Total	120	-	-	-	120
		MTU	120	-	-	-	120

SUMMARY OF HOURS BY FIRM

Role	Firm Name	Firm Init.	MDOT JN	MDOT JN	MDOT JN	MDOT JN	Total
Prime Firm	Michigan Technological University	MTU	2,385	-	-	-	2,385
Totals			2,385	-	-	-	2,385

Michigan Department
of Transportation
5101E (01.08.19)

PROPOSED PERSON HOURS BY PPMS TASK

EXHIBIT E

Summary of all Prime or Subconsultant Hours for **ALL JOB NUMBERS** (including phases). For amendment/revision, complete this form showing all job numbers for all services provided. Submit only one form per consultant. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN						CONTRACT / AUTHORIZATION #:				FIRM ROLE: Prime Firm		
CONSULTANT NAME: Michigan Technological University						PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Education Program						
SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S PER PPMS TASK AND CLASSIFICATION												
PPMS Task Code	Task Description	Programmer/IT Specialist	Director	Associate Director	Technical Writer	Research Engineer II	Research Engineer	Sr. Project Manager, Training & Ops	Sr. Business/Training Support	Event Specialist		HOURS FOR TASK
4110	Task 1: Assist in Coordinating the Michigan TAMC Confer		60		80			60	60	30		290
4120	Task 2: Conduct Michigan Compliance Plan Webinar and		50		20	20		20		40		150
4130	Task 3: Conduct Introduction to Transportation AM for Loc		40		40	60	60			40		240
4140	Task 4: Conduct TAMC PASER Training	20	150		100	150	150			100		670
4150	Task 5: Conduct Inventory Based Rating Training		5		50	50	50	20		20		195
4160	Task 6: Conduct Michigan Bridge Asset Management Trai		15	100	165		50	40		50		420
4170	Task 7: Conduct Workshop on Creating Pavement Asset M		30		60	100	50	30		30		300
4180	Task 8: Project Management & Reporting		10	5		10	20	30		45		120
SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S												
Classification:		Programmer/IT Specialist	Director	Associate Director	Technical Writer	Research Engineer II	Research Engineer	Sr. Project Manager, Training & Ops	Sr. Business/Training Support	Event Specialist		HOURS FOR FIRM
Total Hours:		20	360	105	515	390	380	200	60	355		2385

Proposal Title:**2022 Transportation Asset
Management Council Technical
Assistance Activities Program
Work Plan****Submitted To:**

Roger Belknap
Bureau of Transportation Planning Michigan
Department of Transportation
belknapr@michigan.gov

Principal Investigator:

Tim Colling, PhD, PE
Director – Center for Technology & Training
1400 Townsend Drive - 309 Dillman Hall
Houghton, MI 49931
tkcollin@mtu.edu
906-487-2102

Co-Principal Investigators:

Chris Gilbertson PhD, PE
Associate Director – Center for Technology &
Training
cggilber@mtu.edu

Contracting Authority:

Kelly Kallio
Director of Government Sponsored Programs
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931
(906) 487-2226
(906) 487-2245 fax
rsch@mtu.edu

Date Submitted:

November 18, 2021



Michigan Technological University
Civil, Environmental, and
Geospatial Engineering



November 18, 2021

Via e-mail: belknapr@michigan.gov

Roger Belknap
Michigan Department of Transportation
Bureau of Transportation Planning
P.O. Box 30050
Lansing, MI 48909

RE: Michigan Tech Proposal #2111076, entitled, "2022 Transportation Asset Management Council Technical Assistance Activities Program," directed by Dr. Timothy Colling.

Dear Mr. Belknap,

Michigan Technological University is pleased to submit the attached proposal for your review and consideration.

If you have any technical questions, please contact Dr. Colling at (906) 487-2102 or by email at tkcollin@mtu.edu. For all other questions, please contact Jennifer Bukovich, Sr. Sponsored Programs Analyst, at (906) 487-2226 or by e-mail at sponsored-programs-l@mtu.edu.

Sincerely,

Kelly M. Kallio
Director of Government Sponsored Programs

KMK/jb

Attachments

cc: T. Colling

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1.0 INTRODUCTION

The Michigan Transportation Asset Management Council (TAMC) began delivering its education program and providing technical services in 2004. Since that time, the Center for Technology & Training (CTT) has assisted the TAMC with its education programs and technical assistance services. The CTT is a logical choice for this program because, in addition to the TAMC Education Program, the CTT houses other programs funded by the Michigan Department of Transportation (MDOT) including the Michigan Local Technical Assistance Program (LTAP), Roadsoft, Michigan Engineer's Resource Library (MERL), and the Bridge Load Rating Program. This array of programs economizes upon professional, development, and support staff to make project delivery cost effective. The CTT focuses its efforts specifically on projects related to local government agencies and transportation. The CTT is part of the Civil, Environmental, and Geospatial Engineering (CEGE) department on Michigan Technological University's campus.

2.0 TAMC WORK PLAN GUIDELINES

The tasks for this proposal were identified from educational priorities outlined by TAMC in the *TAMC Strategic Work Program for 2021-2023* and are referenced to the appropriate items in the most recent version of that document.

3.0 WORK PLAN

This work plan and budget is for the period beginning January 1, 2022 and ending December 31, 2022. The project total is \$128,425. A detailed cost estimate is provided Appendix A.

- Task 1: Maintain Roadsoft –IRT Data Submission Protocols
- Task 2: TAMC Quality Review Data Collection Support
- Task 3: Update Bridge Asset Management Guide for Local Agency Bridges in Michigan
- Task 4: Asset Management Domestic State of Practice Study
- Task 5: Undefined Staff Support
- Task 6: Attend and Participate in TAMC Council Meetings
- Task 7: Attend and Participate in TAMC Committee Meetings
- Task 8: Project Management and Monthly Reporting

3.1 Task 1: Maintain Roadsoft – IRT Data Submission Protocols

TAMC Goal 1, Objective 1: Surveying and reporting the condition of roads and bridges.

TAMC dedicates a significant portion of its efforts to collecting the pavement data and construction history information (completed and planned investments) necessary for driving

asset management processes at the local, regional, and state levels of government. TAMC data collection activities require sharing of data between these three levels of government in a meaningful format for each stakeholder. To facilitate this data collection, sharing, and reporting, the TAMC relies on interfaces between Roadsoft (asset management software) developed by the Center for Technology & Training and the Investment Reporting Tool (IRT) developed by the Center for Shared Solutions (CSS). Development for both of these tools is ongoing as user requirements change, software interfaces and underlying data systems are maintained, and data collection policies are modified.

The data transfer protocols and interactivity between Roadsoft and the IRT need to be updated and tested annually to ensure that quality data are passed between the two systems and that changes or updates during the prior year have not resulted in data transfer irregularities. This task should be completed close to the start of data collection activities in April, but the development cycle and project load for CSS will dictate. This task will include annual testing and verification of the Roadsoft export of PASER data to the IRT, and import and export of planned and completed treatments (investment reporting) from Roadsoft to the IRT and from the IRT to Roadsoft. Currently with the recent rewrite of the IRT, the functionality does not exist in the IRT to support planned and completed data transfers, however when the IRT allows this functionality the CTT team will actively implement any changes necessary to make Roadsoft compatible with the new IRT transfer. The task also includes a budget for making small changes to the import and export protocols should they be necessary; such as culverts, signals, or other data, however, at the time of the submission of this proposal, it is not clear what the extent the changes will be.

3.2 Task 2: TAMC Quality Review Data Collection Support

Full Council Goal 1, Objective 1: Surveying and reporting the condition of roads and bridges.

Historically TAMC has relied on MDOT staff to collect quality review data using the ESRI Maptitude program. However, staff retirements at MDOT have recently required MDOT to staff collection of the quality review data with consultants, and the sunseting of ESRI's support for Maptitude has left the consultant teams with additional challenges and costs.

This task will allow collection of quality review data using the same tools that rating teams use. This task will make small functional changes to the Laptop Data Collector and the Roadsoft core program to allow quality review teams to collect and submit data to the Investment Reporting Portal. The project team will work with CSS to define and test an export format that will allow quality review data to be submitted using a data service.

3.3 Task 3: Update Asset Management Guide for Local Agency Bridges in Michigan

TAMC Goal 1, Objective 3: Supporting the development of appropriate asset management methodologies.

TAMC developed a comprehensive bridge asset management guide to assist local agency plan development in 2011 which contains both technical and procedural components. The manual is heavily used in development of asset management plans and in delivery of bridge asset management training. While the content is believed to still be quite relevant, the Bridge Committee has indicated that this manual is starting to age and there are necessary updates to the manual to keep it current.

This task will edit the current Asset Management Guide for Local Agency Bridges in Michigan as needed for improved organization/ease of use and to update out of date information which may include:

1. Procedural / process changes (MBIS/MBRS to MiBridge and cost flowcharts)
2. Legislative updates/references
3. Linked references to additional resources
4. Replacement of local agency sample plan with a recent submittal created using training template or a non-agency specific sample document

The completed manual will be submitted for review by the bridge committee and relevant updates will also be transferred to the training material.

3.4 Task 4: Asset Management Domestic State of Practice Study

TAMC Goal 1, Objective 3: Supporting the development of appropriate asset management methodologies.

TAMC has been the leader in asset management for several decades now. Specifically, TAMC has led the nation in a coordinated approach to asset management across ownership silos and has been unique in local agency asset management. In years past TAMC had no peers to learn and borrow from, however, several states have started to mature in their approach to asset management. Notably the State of Indiana and State of Wisconsin have developed intriguing approaches to local agency asset management. Not every lesson comes from successes, there are also a few states that had strong asset management programs that have faded, which may provide valuable cautionary messages.

This task will conduct a domestic state of practice study in whole state asset management. The study will seek to identify leaders in asset management across the United States and will

attempt to distill information from their experiences. The study will specifically look at the following topics:

- 1) State and local perspectives of asset management integration
- 2) Incentives and directives for encouraging adoption of best practices
- 3) Level of adoption of asset management across the state
- 4) Range of assets actively considered
- 5) Tools or practices that may be beneficial and implementable to Michigan
- 6) Lessons learned from states that have not started asset management or that have backslid in their deployment.

The final deliverable for this task will be a final report and presentation documenting the findings.

3.5 Task 5: Undefined Staff Support

This task provides support to the TAMC for items that cannot be identified at this time but are deemed critical to be completed in a short timeframe. Historically, this task has covered data management or critical changes to programs. This task allocates approximately 80 hours of staff time to tasks as requested by the Council or its sub-committees. Specific work activities are determined through discussion with the sponsor's project manager, the TAMC staff coordinator, or the TAMC chairperson.

3.6 Task 6: Attend and Participate in TAMC Council Meetings

TAMC Goal 3: Coordination of asset management with partner organizations.

This task includes attendance at TAMC Council Meetings to brief members on activity to date, to participate in on-site work, and to take direction from council members and staff. This task also includes time and expenses for CTT staff to attend four on-site 'person-meetings'¹ and six conference-call meetings². Discussion with the sponsor's project manager and the TAMC staff coordinator will determine which meetings will be attended and which personnel will attend. The budget for travel costs will be allocated to attending additional meetings if in person meetings are not convened due to travel restrictions. It is anticipated that several additional virtual meetings may be necessary if in person meetings do not occur.

3.7 Task 7: Attend and Participate in TAMC Committee Meetings

TAMC Goal 3: Coordination of asset management with partner organizations.

¹ A "person-meeting" is one person attending one meeting

² As a cost saving measure, the number of on-site meetings and associated travel cost have been reduced, with the assumption that teleconference meetings will meet the TAMC's needs as they have over the last several years.

This task includes attendance at TAMC Committee Meetings (including monthly meetings with RPO and MPO staff to brief members of activity to date), participation in on-site work, and taking direction from TAMC members and staff. This task also includes time and expenses for the CTT staff to attend four on-site ‘person-meetings’¹ and eight conference-call meetings². Discussion with the sponsor’s project manager and the TAMC staff coordinator will determine which meetings will be attended and which personnel will attend.

The budget for travel costs will be allocated to attending additional meetings if in person meetings are not convened due to travel restrictions. It is anticipated that several additional virtual meetings may be necessary if in person meetings do not occur.

3.8 Task 8: Project Management and Monthly Reporting

TAMC Goal 2: Provide fiscal and budgetary accountability for TAMC.

This task covers all management of the project, project reporting, and project-specific interaction with Michigan Technological University administration and relations with the sponsor.

Monthly progress reports will include a list of activities conducted and an estimate of percent completion by task. Estimates of percent complete are based on aggregate hours worked, not based on budget expended; so, these estimates are not intended to be used for auditing invoices by the sponsor.

4.0 KEY PERSONNEL

Tim Colling, PhD, PE, Director – PI

Chris Gilbertson, PhD, PE, Associate Director – Co-PI

Names of Employees and Positions for this Service

Scott Bershing, Technical Specialist

Chris Codere, Sr. Project Manager, Training & Operations

Jacob Coulson, Software Developer/IT Support

Zach Fredin, PE, Research Engineer

Nick Koszykowski, Sr. Project Manager, Software Development & IS

Joe Kurtz, Software Developer

Daniel Morgan, Software Developer

Luke Peterson, Principle Programmer

Victoria Sage, MS, Technical Writer

Peter Torola, PE, Research Engineer II

APPENDIX A: BUDGET AND COST DERIVATION MDOT FORM 5101A-1

The signed MDOT Priced Proposal is attached to this proposal as a separate document.

APPENDIX B: PAYROLL VERIFICATION



PAYROLL VERIFICATION

Michigan Department of Transportation

"2022 Transportation Asset Management Council Technical Assistance Activities Program"

Principal Investigator: Timothy Colling

<u>Personnel</u>	<u>Current Hourly/Annual Rate:</u>
Timothy Colling	\$ 69.25 / \$144,033.25
Scott Bershing	\$ 31.26 / \$ 65,013.52
Christine Codere	\$ 37.59 / \$ 78,195.54
Jacob Coulson	\$ 24.01 / \$ 49,950.00
Zachary Fredin	\$ 33.36 / \$ 69,390.60
Christopher Gilbertson	\$ 51.28 / \$106,664.00
Nicholas Koszykowski	\$ 48.70 / \$101,291.31
Joseph Kurtz	\$ 21.63 / \$ 45,000.00
Daniel Morgan	\$ 27.64 / \$ 57,500.00
Luke Peterson	\$ 46.90 / \$ 97,543.68
Victoria Sage	\$ 30.19 / \$ 31,397.60
Peter Torola	\$ 40.03 / \$ 83,268.64

Name Susan McDaniel

Date 11/18/2021

Title and Department Office Assistant, Payroll Services

Michigan Technological University

PRICED PROPOSAL COVER SHEET

This form replaces a traditional cover letter, and must have a signature by an authorized legal signer. This form is required for all priced proposals, and shall be the very first page(s). This priced proposal is a binding document and no further Consultant signature(s) will be required if an authorization is issued, rather than a contract.

This form shall be completed by each consultant that has a derivation of cost sheet as part of this priced proposal. Traditional cover letters are not required, but may be added after this Priced Proposal Cover Sheet(s).

PROJECT INFORMATION

MDOT CONTROL SECTION(S) – JOB NUMBER(S):

CS - JN

CONTRACT / AUTHORIZATION NUMBER:

PROJECT DESCRIPTION:

2022 Transportation Asset Management Council Technical Assistance Activities Program

BASIS FOR REIMBURSEMENT AND METHOD OF PAYMENT as specified in the MDOT Scope of Services (*Actual Cost, Actual Cost Plus Fixed Fee, Loaded Hourly Rate, Unit Price, Lump Sum, and Milestones*) When applicable, list ALL Consultant(s) performing work on this project and the basis for reimbursement and method of payment for each.) **Example: Actual Cost Plus Fixed Fee: (Each firm init.)**

Actual Cost (AC)

MTU

PREQUALIFICATION CLASSIFICATION(S) (When applicable, list ALL Consultant(s) performing work on this project and all classification(s) in which they will be working. Use current MDOT classification names.) **Example: Design: Roadway: (Each firm init.)**

TAMC Technical Assistance Activities

MTU

PRIME CONSULTANT INFORMATION

LEGAL BUSINESS NAME:

Michigan Technological University

FEDERAL ID NUMBER: (*Must match prequalification*)

386005955

ROLE: (Prime, Tier 1, Tier

Prime Firm

COMPANY ADDRESS:

1400 Townsend Dr,

CITY:

Houghton

STATE:

MI

ZIP CODE:

49931

EMAIL (AUTHORIZED CONTRACT SIGNER):

rsch@mtu.edu

PHONE NO.:

9064872226

EMAIL (FOR SIGNED CONTRACT DISTRIBUTION):

rsch@mtu.edu

By signature on this form, the consultant agrees that information provided in the consultant priced proposal does not contradict the scope of services or violate the contract terms and conditions.

AUTHORIZED LEGAL SIGNER: (Printed Name - Title)

**Kelly Kallio
Director, Government Sponsored
Programs**

DIGITAL SIGNATURE AND DATE:

**DOCUMENT OF CHANGES TO THE MDOT
SCOPE OF SERVICES**

This form is for use during the contract approval process and shall be attached anywhere the MDOT Scope of Services is used, such as in a contract exhibit. The MDOT Project Manager (PM) shall complete this form to document any changes (or verify no change) to an MDOT Scope of Service previously used for advertisement and for consultant selection that has been changed through, for example, the contract negotiation process or the scope verification meeting. This form is not required when a PM is requesting additional services through a revision or amendment to an agreement.

PROJECT INFORMATION

MDOT CONTROL SECTION(S) – JOB NUMBER(S): CS - JN	CONTRACT / AUTHORIZATION NUMBER: 0								
PRIME CONSULTANT NAME: Michigan Technological University	PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Technical Assistance Activities Program								
Box A. <input type="checkbox"/> No changes have been made. If you selected one of the following, please complete Box B. <input type="checkbox"/> Changes have been made - pages are attached <input type="checkbox"/> Changes have been made - pages are <u>not</u> attached	Box B. (Select all that apply): <table border="1"><tr><td><input type="checkbox"/></td><td>Changes include a major adjustment in the project limits.</td></tr><tr><td><input type="checkbox"/></td><td>Changes do not include a major adjustment in the project limits.</td></tr><tr><td><input type="checkbox"/></td><td>Changes affect the engineer's estimate.</td></tr><tr><td><input type="checkbox"/></td><td>Changes do not affect the engineer's estimate.</td></tr></table>	<input type="checkbox"/>	Changes include a major adjustment in the project limits.	<input type="checkbox"/>	Changes do not include a major adjustment in the project limits.	<input type="checkbox"/>	Changes affect the engineer's estimate.	<input type="checkbox"/>	Changes do not affect the engineer's estimate.
<input type="checkbox"/>	Changes include a major adjustment in the project limits.								
<input type="checkbox"/>	Changes do not include a major adjustment in the project limits.								
<input type="checkbox"/>	Changes affect the engineer's estimate.								
<input type="checkbox"/>	Changes do not affect the engineer's estimate.								

For Construction Engineering projects, an Expectations Meeting was held with the Consultant as required by the MDOT Construction Manual. This meeting was held on the following date:

DATE:

LIST SPECIFIC ADDITIONS, DELETIONS, AND/OR CHANGES IN THE MDOT SCOPE OF SERVICES

I certify that all of the above additions, deletions, and/or changes have been incorporated within the advertised MDOT Scope of Services, as amended.

AUTHORIZED LEGAL SIGNER: (Printed Name - Title) Kelly Kallio Director, Government Sponsored Programs	DIGITAL SIGNATURE AND DATE:
MDOT PROJECT MANAGER: Roger Belknap	DIGITAL SIGNATURE AND DATE:

CERTIFICATION OF OVERHEAD COST RATE

- This Certification is required per U.S. Department of Transportation, Federal Highway Administration (FHWA) Order 4470.1A, and dated October 27, 2010. FHWA has issued this new policy to be **effective January 1, 2011**, requiring consultants provide certification that costs used to establish overhead cost rates for Federal-aid engineering and design related services contracts do not include any costs which are expressly unallowable; and that the overhead cost rate was established only with allowable costs.

- This certification is to provide assurance that the overhead costs rate was calculated in accordance with the applicable cost principles contained in the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR) Part 31.

- This form shall be completed and submitted by the prime consultant and each subconsultant (first and second tier subconsultant(s)) that have a derivation of cost sheet as part of this priced proposal where an overhead rate was proposed. Please note that the Certifying Official is defined as the firm's Executive (President, Vice President or equivalent) or Chief Financial Officer.

PROJECT INFORMATION

MDOT CONTROL SECTION(S) – JOB NUMBER(S):

CS - JN

CONTRACT / AUTHORIZATION NUMBER:

PROJECT DESCRIPTION:

2022 Transportation Asset Management Council Technical Assistance Activities Program

DECLARATION OF CERTIFICATION

OVERHEAD COST RATE:

35.75%

DATE MDOT ACCEPTED OVERHEAD COST RATE:

4/8/2021

FISCAL YEAR COVERED FOR RATE CALCULATION:

7/1/2021

to

6/30/2024

I, the undersigned, certify that I have reviewed the overhead rate calculation for the fiscal period as specified above and to the best of my knowledge and belief:

1.) All costs included to establish the above overhead cost rate are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) of title 48, Code of Federal Regulations (CFR), part 31.

2.) This overhead cost rate does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR 31.

Has the firm been approved to use the SAFE HARBOR INDIRECT COST RATE of 110% with the understanding that the Safe Harbor Rate will be used for the life of the agreement?

N

All known material transactions or events that have occurred affecting the firm's ownership, organization and overhead cost rates have been disclosed. All supplied wage rates contained within this submittal are true, accurate, and compliant with the guidelines established by 48 CFR 31.201-3.

CONSULTANT INFORMATION

LEGAL BUSINESS NAME:

Michigan Technological University

FEDERAL ID NUMBER: (Must match prequalification file)

386005955

ROLE: (Prime/Tier 1/Tier 2)

Prime Firm

COMPANY ADDRESS:

1400 Townsend Dr,

CITY:

Houghton

STATE:

MI

ZIP CODE:

49931

EMAIL (AUTHORIZED CONTRACT SIGNER):

rsch@mtu.edu

PHONE NO.:

9064872226

EMAIL (FOR SIGNED CONTRACT DISTRIBUTION):

rsch@mtu.edu

By signature on this form, the consultant agrees that information provided in the consultant priced proposal does not contradict the scope of services or violate the contract terms and conditions.

CERTIFYING OFFICIAL: (Printed Name - Title)

Kelly Kallio
Director, Government Sponsored
Programs

DIGITAL SIGNATURE OF CERTIFYING OFFICIAL AND DATE:

SUMMARY OF TOTAL PROJECT COSTS BY JOB NUMBER

EXHIBIT A - 1

All Prime and Subconsultant Costs for ALL JOB NUMBERS (including phases). For amendment or revision, complete this form showing all job numbers for all services provided. Report Tier 2 Subconsultant costs with Tier 1 Subconsultants. For use with all Priced Proposals. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN							CONTRACT / AUTHORIZATION NUMBER:			
PRIME CONSULTANT NAME: Michigan Technological University						DBE Goal:	PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Technical Assistance Activities Program			
Consultant	Firm Role:	Contracted to:	Payment Method:	Job Number	Job Number	Job Number	Job Number	DBE (Y/N)	Total	% of Contract
HOURS				1,385	-	-	-		1,385	
Michigan Technological University	P	MDOT	AC	1,385	-	-	-		1,385	
LABOR				\$ 62,277.70	\$ -	\$ -	\$ -		\$ 62,277.70	
Michigan Technological University	P	MDOT	AC	\$ 62,277.70	\$ -	\$ -	\$ -		\$ 62,277.70	
OVERHEAD				\$ 22,264.28	\$ -	\$ -	\$ -		\$ 22,264.28	
Michigan Technological University	P	MDOT	AC	\$ 22,264.28	\$ -	\$ -	\$ -		\$ 22,264.28	
OTHER DIRECT EXPENSES				\$ 43,882.95	\$ -	\$ -	\$ -		\$ 43,882.95	
Michigan Technological University	P	MDOT	AC	\$ 43,882.95	\$ -	\$ -	\$ -		\$ 43,882.95	
TOTAL COSTS SUMMARY										
Consultant	Firm Role:	Contracted to:	Payment Method:	Job Number	Job Number	Job Number	Job Number	DBE (Y/N)	Total	% of Contract
Totals										
Michigan Technological University				\$ 128,424.93	\$ -	\$ -	\$ -	N	\$ 128,424.93	100.0%
Firm Role Key: P = Prime Firm, T1 = Tier 1 Sub, T2 = Tier 2 Sub										
TOTAL COSTS				\$ 128,424.93	\$ -	\$ -	\$ -		\$ 128,424.93	100.0%

DERIVATION OF PRIME CONSULTANT COSTS

Exhibit B

Summary of all Prime Costs for ALL JOB NUMBERS (including phases) for all services provided. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN	CONTRACT / AUTHORIZATION #:	FIRM ROLE: Prime Firm
PRIME CONSULTANT NAME: Michigan Technological University	PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Technical Assistance Activities Program	

PRIME LABOR:

CLASSIFICATION	CODE	HOURS	x	RATE/HR	=	LABOR COST
Technical Specialist		20	x	\$ 31.26	=	\$ 625.20
Sr. Project Manager, Training & Ops		20	x	\$ 37.59	=	\$ 751.80
Director		240	x	\$ 69.25	=	\$ 16,620.00
Software Developer/IT Support		100	x	\$ 24.01	=	\$ 2,401.00
Research Engineer		180	x	\$ 33.36	=	\$ 6,004.80
Sr. Research Engineer		85	x	\$ 51.28	=	\$ 4,358.80
Sr. Project Manager, Software Dev & IS		100	x	\$ 48.70	=	\$ 4,870.00
Principal Programmer/Analyst		350	x	\$ 46.90	=	\$ 16,415.00
Technical Writer		140	x	\$ 30.19	=	\$ 4,226.60
Research Engineer II		150	x	\$ 40.03	=	\$ 6,004.50
Total Hours:		1385			Total Labor	\$ 62,277.70

PRIME OVERHEAD: (Total Labor x Overhead Rate)

Overhead Rate:	35.75%	Total Overhead	\$ 22,264.28
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PRIME OTHER DIRECT EXPENSES: (List each item once at Actual Cost - NO MARKUP.)

Items	Quantity	@	Unit Price	Unit	=	Item Price
Mileage - MTU Motorpool	7,500.00	@	\$ 0.560	Mile	=	\$ 4,200.00
Lodging	12.00	@	\$ 78.000	Night	=	\$ 936.00
Per Diem	12.00	@	\$ 55.000	Day	=	\$ 660.00
Fringe Benefits - Prof.	62,277.70	@	\$ 0.426	Dollar	=	\$ 26,530.30
ODC Overhead	32,326.30	@	\$ 0.358	Dollar	=	\$ 11,556.65
Total Other Direct Expenses						\$ 43,882.95

TOTAL PRIME FIRM COSTS	\$ 128,424.93
------------------------	----------------------

Firm Role: Prime Firm

Note: Payment Method = AC

SUMMARY OF PERSON HOURS BY PPMS TASK

EXHIBIT D

All Prime and Subconsultant Hours for EACH JOB NUMBER (including phases). For amendment/revision, complete this form showing all job numbers for all services provided. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN	CONTRACT / AUTHORIZATION NUMBER:
--	----------------------------------

PRIME CONSULTANT NAME: Michigan Technological University	PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Technical Assistance Activities Program
--	---

SUMMARY OF HOURS BY PPMS TASK

PPMS Task Code	Task Description	Firm Init.	MDOT JN	MDOT JN	MDOT JN	MDOT JN	Total
4010	Task 1: Maintain Roadsoft - IRT Data Submission Prot	Total	290	-	-	-	290
		MTU	290	-	-	-	290
4020	Task 2: TAMC Quality Review Data Collection Support	Total	280	-	-	-	280
		MTU	280	-	-	-	280
4030	Task 3: Update Asset Management Guide for Local Ag	Total	210	-	-	-	210
		MTU	210	-	-	-	210
4040	Task 4: Asset Management Domestic State of Practice	Total	280	-	-	-	280
		MTU	280	-	-	-	280
4050	Task 5: Undefined Staff Support	Total	80	-	-	-	80
		MTU	80	-	-	-	80
4060	Task 6: TAMC Council Meetings	Total	70	-	-	-	70
		MTU	70	-	-	-	70
4070	Task 7: TAMC Committee Meetings	Total	105	-	-	-	105
		MTU	105	-	-	-	105
4080	Task 8: Project Management	Total	70	-	-	-	70
		MTU	70	-	-	-	70

SUMMARY OF HOURS BY FIRM

Role	Firm Name	Firm Init.	MDOT JN	MDOT JN	MDOT JN	MDOT JN	Total
Prime Firm	Michigan Technological University	MTU	1,385	-	-	-	1,385
Totals			1,385	-	-	-	1,385

Michigan Department of Transportation 5101E (01.08.19)		PROPOSED PERSON HOURS BY PPMS TASK										EXHIBIT E	
Summary of all Prime or Subconsultant Hours for ALL JOB NUMBERS (including phases). For amendment/revision, complete this form showing all job numbers for all services provided. Submit only one form per consultant. Use additional pages as necessary.													
MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN								CONTRACT / AUTHORIZATION #:				FIRM ROLE: Prime Firm	
CONSULTANT NAME: Michigan Technological University								PROJECT DESCRIPTION: 2022 Transportation Asset Management Council Technical Assistance Activites Program					
SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S PER PPMS TASK AND CLASSIFICATION													
PPMS Task Code	Task Description	Technical Specialist	Sr. Project Manager, Training & Ops	Director	Software Developer/IT Support	Research Engineer	Sr. Research Engineer	Sr. Project Manager, Software Dev & Test	Principal Programmer/Analyst	Technical Writer	Research Engineer II	HOURS FOR TASK	
4010	Task 1: Maintain Roadsoft - IRT Data Submission Protocol			20				20	250			290	
4020	Task 2: TAMC Quality Review Data Collection Support			20	100			40	100		20	280	
4030	Task 3: Update Asset Management Guide for Local Agencies			10		80	20			100		210	
4040	Task 4: Asset Management Domestic State of Practice Study			20		100	20			40	100	280	
4050	Task 5: Undefined Staff Support	20		30				30				80	
4060	Task 6: TAMC Council Meetings			60			10					70	
4070	Task 7: TAMC Committee Meetings			60			35				10	105	
4080	Task 8: Project Management		20	20				10			20	70	
SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S													
Classification:		Technical Specialist	Sr. Project Manager, Training & Ops	Director	Software Developer/IT Support	Research Engineer	Sr. Research Engineer	Sr. Project Manager, Software Dev & Test	Principal Programmer/Analyst	Technical Writer	Research Engineer II	HOURS FOR FIRM	
Total Hours:		20	20	240	100	180	85	100	350	140	150	1385	

ASSET MANAGEMENT

The resources allocated to the Metropolitan/Regional Planning Organization (MPO/RPO) from the Transportation Asset Management Council (TAMC) annual budget shall be utilized to assist in the completion of the TAMC Work Program. All work shall be consistent with the policies and priorities established by the TAMC. All invoices submitted for reimbursement of Asset Management activities shall utilize Michigan Department of Transportation (MDOT) standard invoice forms and include the required information for processing. The MPO/RPO shall complete the required products and perform tasks according to the timeframes and directives established within TAMC's data collection policies, which are located on the TAMC website (<http://tamc.mcgi.state.mi.us/TAMC/#/aboutus>). The MPO/RPO will emphasize these tasks to support the top 125 Public Act 51 agencies (agencies that certify under Public Act 51 a minimum of 100 centerline miles of road) within the planning area when resources are limited. The activities eligible for TAMC reimbursement include the following:

TASKS

I. Training Activities

- A. Attendance at training seminar(s) on the use of Pavement Surface Evaluation and Rating (PASER) and Inventory-based Rating System for unpaved roadways.
- B. Represent MPO/RPO at TAMC-sponsored conferences and seminars, including attending either the Spring or Fall TAMC Conference.
- C. Attend TAMC-sponsored Investment Reporting Tool (IRT) training seminars.
- D. Attend TAMC-sponsored Asset Management Plan Development training seminars.

II. Data Collection Participation and Coordination

A. Federal Aid System:

- 1. Organize schedules with Public Act 51 agencies within MPO/RPO's boundary for participating in Federal Aid data collection efforts; ensure all participants of data collection have access to State of Michigan travel reimbursement rates.
- 2. Coordinate, participate and facilitate road surface data collection on approximately one-half of the Federal Aid System in accordance with the TAMC Policy for the Collection of Roadway Condition Data on Federal Aid Eligible Roads and Streets.
- 3. Collect unpaved roadway condition data on approximately half of any unpaved Federal Aid eligible roadways using the Inventory-based Rating System developed by the Michigan Technological University's Center for Technology and Training.

B. Non-Federal Aid System:

- 1. The RPO/MPO may allocate reimbursements for Non-Federal Aid data collection to Public Act 51 agencies according to the resources available to them in the manner that best reflects the priorities of their area and supports the TAMC work.

2. Coordinate Non-Federal Aid data collection cycles with Public Act 51 agencies with an emphasis on the top 125 agencies.
3. Ensure all participants of data collection understand procedures for data sharing with TAMC as well as TAMC policy and procedures for collecting Non-Federal Aid data.
4. Participate and perform data collection with Public Act 51 agencies on an as-needed basis for the data collection of Non-Federal Aid roads when requested.

III. Equipment

- A. Ensure rating teams have the necessary tools to complete the federal aid data collection activity by maintaining a laptop compatible with the Laptop Data Collector and Roadsoft programs, a functioning Global Positioning System (GPS) unit, and other required hardware in good working order.
- B. Communicate any equipment needs and purchases with the TAMC Coordinator; laptops are eligible for replacement on a three-year cycle.

IV. Data Submission

- A. Develop and maintain technical capability to manage regional Roadsoft databases and the Laptop Data Collector program; maintain a regional Roadsoft database that is accurate and consistent with local agency data sets.
- B. Coordinate Quality Assurance/Quality Control activities and data submission tasks according to protocols established in TAMC Data Collection Policies for Federal Aid and Non-Federal Aid Roads.
- C. Monitor and report status of data collection efforts to TAMC Asset Management Coordinator through monthly coordinator calls and/or monthly or quarterly program updates that are mailed with invoices.
- D. Provide links on agency websites and reports to the TAMC website, interactive maps and dashboards for the dissemination of roadway data.

V. Asset Management Planning

- A. Participate and attend TAMC-sponsored training and workshops in order to provide technical support for Asset Management Plan development activities.
- B. Provide an annual reporting of the status of Public Act 51 agency Asset Management Plans and keep abreast of the status of these plans for updates and revision.
- C. Provide technical assistance and training funds to Public Act 51 agencies during the development of local Asset Management Plans using TAMC templates when applicable; coordinate these tasks with an emphasis on the Top 125 agencies.

VI. Technical Assistance

- A. Provide technical assistance to local agencies in using the TAMC reporting tools for planned and completed infrastructure investments or any other TAMC Work Program Activity.
- B. Integrate PASER ratings and asset management into project selection criteria:
 1. Analyze data and develop road preservation scenarios.
 2. Analyze performance of implemented projects.

VII. Culvert Mapping Pilot

- A. Provide administrative and technical assistance to Public Act 51 agencies and MDOT

for reimbursement of TAMC funds for participation in the 2018 TAMC Culvert Mapping Pilot project.

- B. Utilize TAMC reporting forms to communicate progress and expenditures of Public Act 51 agencies to assist TAMC in the Culvert Mapping Pilot Report.

Required Products

- I. PASER data for Federal Aid System submitted to TAMC via the IRT.
- II. PASER data for Non-Federal Aid System submitted to TAMC via the IRT.
- III. Quarterly or monthly activities reports submitted with invoices to TAMC Coordinator.
- IV. Create an Annual Report of Asset Management program activities as well as a summary of annual PASER condition data by local agency, functional classification, and Public Act 51 Legal System; provide links to the Regional Annual Report on agency website and submit copies to TAMC Coordinator by April 1 of each year.
- V. Prepare a draft status report of Public Act 51 agency Asset Management activities and plans within MPO/RPO boundary by September 30 of each year.

Proposal Title:**2021-2022 Transportation Asset Management Council Culvert Condition Assessment Work Plan****Submitted To:**

Roger Belknap
Bureau of Transportation Planning
Michigan Department of Transportation
belknapr@michigan.gov

Principal Investigator:

Chris Gilbertson PhD, PE
Associate Director – CTT
cggilber@mtu.edu
1400 Townsend Drive - 309 Dillman Hall
Houghton, MI 49931
906-487-2102

Co-Principal Investigators:

Tim Colling PhD, PE
Director – CTT
tkcollin@mtu.edu, 906-487-2102

Nick Koszykowski
Senior Software Architect – CTT
nkoszyk@mtu.edu, 906-487-2102

Contracting Authority:

Kelly Kallio
Director – Government Sponsored Programs Office
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931
(906) 487-2226
(906) 487-2245 fax
rsch@mtu.edu

Date Submitted:

February 12, 2021



Michigan Technological University
Civil and Environmental Engineering



February 16, 2021

Via e-mail: belknapr@michigan.gov

Roger Belknap
Michigan Department of Transportation
425 W. Ottawa Street
Lansing, MI 48933

RE: Revised Michigan Tech Proposal #2101071, entitled, "2021 TAMC Culvert Condition Assessment Work Plan," directed by Dr. Christopher Gilbertson.

Dear Mr. Belknap,

Michigan Technological University is pleased to submit the attached revised proposal for your review and consideration.

If you have any technical questions, please contact Dr. Gilbertson at (906) 487-2102 or by email at cggilber@mtu.edu. For all other questions, please contact Jennifer Bukovich, Sponsored Programs Analyst, at (906) 487-2226 or by e-mail at jlbukovi@mtu.edu.

Sincerely,

Kelly M. Kallio
Director of Government Sponsored Programs

KMK/jb

Attachments

cc: C. Gilbertson
C. Codere
File

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1.0 INTRODUCTION

The Michigan Transportation Asset Management Council (TAMC) began delivering its education program and providing technical services in 2004. Since that time, Michigan Technological University has assisted with the TAMC Education Program and continues to be a logical choice for assisting with this program because of its Center for Technology & Training (CTT). The CTT is part of the Department of Civil and Environmental Engineering (CEE) and is located on Michigan Technological University's campus, which offers a wide array of resources for this project. The CTT houses various state- and federal-funded programs. For example, CTT projects funded by the Michigan Department of Transportation (MDOT) include the Michigan Local Technical Assistance Program (LTAP), Roadsoft, Michigan Engineer's Resource Library (MERL), and Bridge Load Rating technical support program. Additionally, the CTT houses the federally-funded Environmental Protection Agency's Region 5 environmental finance center—the Great Lake Environmental Infrastructure Center (GLEIC). This array of programs economizes upon professional, development, and support staff to make project delivery cost effective and time efficient. The CTT focuses its efforts specifically on projects related to local government agencies and transportation.

One of the prime challenges of effectively working with the over 600 local agencies in Michigan is keeping accurate contact information. The ability of the Michigan LTAP to contact local agency staff through e-mail, phone, and direct mail can provide a major benefit to programs that are targeted at Michigan's local agencies, like TAMC's training efforts. The Michigan LTAP maintains a state-of-the-art contact and event management database, which makes advertising and participant registration for local agency training events a very simple, cost-effective process. In addition, because LTAP is a nationally recognized program working to educate local agencies, events advertised through the Michigan LTAP can take advantage of state and national agreements between partner organizations—such as County Road Association (CRA) of Michigan, National Association of County Engineers (NACE), National Association of Counties (NACO), Michigan Township Association (MTA), American Council of Engineering Companies (ACEC), and Michigan Municipal League (MML)—for access to their contact databases. These agreements allow the Michigan LTAP access to these partner organization mail lists at no cost. Access to these same mail lists outside of LTAP partner organization agreements can have a substantial cost, sometimes as high as \$0.10 to \$0.20 per contact.

Events that are co-sponsored with the Michigan LTAP benefit by utilizing the wealth of local agency contact information that is stored in the Michigan LTAP contact and event management system and from the no-cost access to Michigan LTAP partner organization mail lists. They also benefit by taking advantage of the infrastructure that the Michigan LTAP has for registering and invoicing participants, event tracking, and training records retention. By not duplicating these

efforts, the arrangement results in an economy of scale through cooperation among programs that educate local agency transportation staff.

A nominal registration fee will be assessed to participants for attending training events delivered under this program consistent with Michigan LTAP policy. Registering and failing to show at an event per Michigan LTAP cancellation policy will result in a fee for participants. Registration fees are calculated to break even for on-site expenses, which include consumables that participants use or take with them (such as facility rental, webinar and phone line expenses, food and refreshments, handouts, and rental of audio visual equipment). Registration fees help to offset the load on the program for on-site activities. The absence of a registration fee (i.e., free training) has been shown to increase no-shows and decrease attendance at training programs because it is assumed that “free” training has some other profit motive and requires no commitment on the part of the participant.

Participants in training events offered under this program will be issued certificates of completion for continuing education hours (CEH) required for maintaining a Michigan professional engineer license where applicable. Every attempt will be made to ensure that trainings provided in this program are eligible for CEH credit for attendees.

Since its inception, the TAMC training program has been and continues to be coordinated as a co-sponsored training event with the Michigan LTAP.

2.0 TAMC WORK PLAN GUIDELINES

At the request of TAMC this proposal has been separated from other project work that CTT has with TAMC in order to maintain separate and discrete financial information relating to the completion of these tasks.

3.0 WORK PLAN

The FHWA Culvert Inspection System had been incorporated into Roadsoft and has been used historically by local agencies. The 2018 TAMC Culvert Pilot’s evaluation system added additional deterioration descriptions for specific culvert types not included in the 1986 FHWA Culvert Inspection System. An update to the FHWA method was published by AASHTO in August 2020. AASHTO’s Culvert & Storm Drain System Inspection Guide method for condition evaluation was compared with the TAMC Pilot and MDOT systems and the results were presented in the 2020 TAMC Culvert Condition Assessment Final Report, accepted by the TAMC Bridge Committee on December 23, 2020.

This work plan will assist the TAMC Bridge Committee with completing a state-specific culvert inspection guide based on the evaluation method published by AASHTO. Additional tasks will

update the TAMC culvert inventory and evaluation training program to reflect the new guide and changes will be made to Roadsoft to facilitate data collection under the updated criteria. A final report will summarize the work associated with the culvert pilot including the tasks within this work plan.

This work plan and budget are for the period beginning March 1, 2021 and ending September 30, 2022. The project budget is \$135,008. The Budget and Cost Derivation, MDOT Form 5101A-1, can be found in Appendix A.

The work plan consists of the following major tasks:

- Task 1: Provide Technical Writing and Editing for the TAMC Culvert Inspection Guide
- Task 2: Update and Provide Culvert Condition Assessment Training
- Task 3: Update Roadsoft Culvert Module for TAMC Culvert Inspection Guide
- Task 4: Final Report

Task 1: Provide Technical Writing and Editing for the TAMC Culvert Inspection Guide

The AASHTO Culvert & Storm Drain System Inspection Guide states that it “is not intended to be used as a standard or policy statement. (1.3.1)” and that “agencies may choose to use this information as one reference on which to build inspection, assessment, and management criteria best suited to their particular needs.” The TAMC Bridge Committee used the guide along with survey and research presented by the CTT during the 2020 TAMC Culvert Condition Assessment project to compile a draft document with a working title “Michigan Non-NBI Culvert Inspection Guide”. This document is intended to serve as the technical document describing how to meet consistency standards required to submit culvert data to the TAMC according to the Policy for Collection of Inventory and Condition Data; a standalone policy document developed by the Bridge Committee to describe the policy and procedures for collecting the physical inventory and condition data of culverts owned by Public Act 51 agencies within Michigan.

The draft Michigan Non-NBI Culvert Inspection Guide was presented following the draft Policy for Collection of Culvert Inventory and Condition Data (Attachment 9 in meeting agenda) at the January 6th TAMC Meeting. This draft document will serve as the template for Task 1. CTT will provide technical writing services to the Bridge Committee for editing the draft document and completing areas where the template describes content that was not finalized.

The TAMC Bridge Committee chose to accept the AASHTO method for condition evaluation but discussed a desire to re-organize the reporting of condition data by combining and simplifying

data reporting categories. It is expected that the TAMC Bridge Committee will finalize these reporting categories and any unresolved data collection procedures and policy before the CTT technical writer begins this task.

Task 2: Update and Provide Culvert Condition Assessment Training

The CTT developed training for the 2018 TAMC Culvert Pilot. This training has been offered subsequently but has not been updated. The purpose of this task is to update the existing TAMC Culvert Condition Assessment training program to follow the Michigan Non-NBI Culvert Inspection Guide (Task 1).

This task includes presentation of four webinar sessions of approximately two to three-hours each. The training modules will provide detailed information on the three primary aspects of collecting culvert inventory and condition data: equipment, data collection, and data validation.

Two of the webinars will be focused on data collection and data handling. Topics for the training will include: recommended equipment for culvert data collection; completing data collection with Roadsoft using visual walk-throughs of the software to explain the processes needed to collect each piece of information, and the overall process of data management and quality control.

The remaining two webinars will teach participants the technical points of assessing culvert condition using the modified FHWA Culvert Inspection System. The training will present example culverts and allow participants to rate them using the condition assessment system. The training will include at least one example of every major culvert material type along with a variety of culvert conditions. Instructors will provide guidance on the correct use of the condition evaluation system and discuss each example with reference to the culvert rating table provided in the system.

Task 3: Update Roadsoft Culvert Module for TAMC Culvert Inspection Guide

Roadsoft is used by the majority of local agencies in the State of Michigan for collecting, storing, and analyzing data associated with transportation infrastructure. The Roadsoft Culvert Module was updated in 2018 to accommodate the TAMC Culvert Pilot.

In this task CTT will rebuild the Roadsoft Culvert Module for consistency with the Michigan Non-NBI Culvert Inspection Guide (Task 1). Updates to the module will include the following:

- Data dictionary will be updated to be consistent with the MI Non-NBI Culvert Inspection Guide

- The module will be updated to reflect the updated data dictionary. Old fields will be retired as read-only until a future date when they will be removed.
- A conversion tool will be written to provide an interface for the user to transfer data from old fields into the new data dictionary fields where possible.
- Updates to the data dictionary will require updates to Filters, Legends, Import/Export, Reports, Laptop Data Collector, and Roadsoft Mobile.
- Upload of culvert data to the CSS web service will be updated to reflect the revised data dictionary.

Task 4: Final Report

A final report will serve as the project deliverable for this work plan. The final report will contain a summary of previous work as contained in the Michigan Local Agency 2018 Culvert Inventory Pilot Evaluation Report and the 2020 TAMC Culvert Condition Assessment Final Report and tie in findings from the proposed work plan.

The final report will complete the findings of the TAMC Culvert Pilot by including the update of the pilot training materials and reporting tools (Roadsoft). Recommendations from the previous work resulted in the adoption of a new condition evaluation method based on the AASHTO Culvert & Storm Drain System Inspection Guide and detailed in the Michigan Non-NBI Culvert Inspection Guide (Task 1).

Agencies who participate in the training and/or data collection will be asked to complete a survey to gather their thoughts on the updated training, the new collection method, and the updated Roadsoft culvert module used to collect the data. This information will be summarized in the final report.

The final report appendices will contain the Michigan Non-NBI Culvert Inspection Guide (Task 1), training materials (Task 2), and the Roadsoft culvert data dictionary (Task 3).

Anticipated Schedule:

2021 TAMC Culvert Condition Assessment	2021												2022								
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Task 1: Provide Technical Writing and Editing for the TAMC Culvert Inspection Guide																					
Task 2: Update and Provide Culvert Condition Assessment Training																					
Task 3: Update Roadsoft Culvert Module for TAMC Culvert Inspection Guide																					
Task 4: Final Report																					

4.0 KEY PERSONNEL

Chris Gilbertson, PhD, PE, Associate Director – PI

Tim Colling, PhD, PE, Director – Co-PI

Nick Koszykowski – Co-PI

Names of Employees and Positions for this Service

Scott Bershing, Technical Specialist

Tim Colling, PhD, PE, Director – PI

Zach Fredin, PE, Research Engineer

Chris Gilbertson, PhD, PE, Associate Director

Nick Koszykowski – Senior Software Architect – Co-PI

Luke Peterson, Principal Programmer/Analyst

Victoria Sage, MS, Technical Writer/Training Coordinator

Lindsey Wells, User Interface/User Experience Specialist

Appendix A: Budget and Cost Derivation MDOT Form 5101A-1

The signed MDOT Priced Proposal is attached to this proposal as a separate document.

Appendix B: Payroll Verification

PAYROLL VERIFICATION

Michigan Department of Transportation

" 2021 TAMC Culvert Condition Assessment "

Principal Investigator: Christopher Gilbertson

<u>Personnel</u>	<u>Current Hourly/Annual Rate:</u>
Scott Bershing	\$30.05 / \$ 62,513
Timothy Colling	\$67.30 / \$139,974
Zachary Fredin	\$31.30 / \$ 65,100
Christopher Gilbertson	\$49.55 / \$103,057
Nicholas Koszykowski	\$47.05 / \$ 97,866
Luke Peterson	\$45.09 / \$ 93,792
Victoria Sage	\$28.73 / \$ 59,750
Lindsey Wells	\$21.00 / \$ 43,680



01/29/2021

Roxanne Barrette
Payroll Supervisor, Payroll Services
Michigan Technological University

Michigan Department of Transportation 5101 (01.08.19)		PRICED PROPOSAL COVER SHEET		Page 1 of 1	
This form replaces a traditional cover letter, and must have a signature by an authorized legal signer. This form is required for all priced proposals, and shall be the very first page(s). This priced proposal is a binding document and no further Consultant signature(s) will be required if an authorization is issued, rather than a contract.					
This form shall be completed by each consultant that has a derivation of cost sheet as part of this priced proposal. Traditional cover letters are not required, but may be added after this Priced Proposal Cover Sheet(s).					
PROJECT INFORMATION					
MDOT CONTROL SECTION(S) – JOB NUMBER(S): CS - JN			CONTRACT / AUTHORIZATION NUMBER:		
PROJECT DESCRIPTION: 2021 TAMC Culvert Condition Assessment					
BASIS FOR REIMBURSEMENT AND METHOD OF PAYMENT as specified in the MDOT Scope of Services (<i>Actual Cost, Actual Cost Plus Fixed Fee, Loaded Hourly Rate, Unit Price, Lump Sum, and Milestones</i>) When applicable, list ALL Consultant(s) performing work on this project and the basis for reimbursement and method of payment for each.) Example: Actual Cost Plus Fixed Fee: (Each firm init.)					
Actual Cost (AC)			MTU		
PREQUALIFICATION CLASSIFICATION(S) (When applicable, list ALL Consultant(s) performing work on this project and all classification(s) in which they will be working. Use current MDOT classification names.) Example: Design: Roadway: (Each firm init.)					
TAMC Culvert Condition Assessment Activities			MTU		
PRIME CONSULTANT INFORMATION					
LEGAL BUSINESS NAME: Michigan Technological University		FEDERAL ID NUMBER: (<i>Must match prequalification</i>) 386005955		ROLE: (Prime, Tier 1, Tier Prime Firm	
COMPANY ADDRESS: 1400 Townsend Dr.		CITY: Houghton	STATE: MI	ZIP CODE: 49931	
EMAIL (AUTHORIZED CONTRACT SIGNER): rsch@mtu.edu		PHONE NO.: 9064872226		EMAIL (FOR SIGNED CONTRACT DISTRIBUTION): rsch@mtu.edu	
By signature on this form, the consultant agrees that information provided in the consultant priced proposal does not contradict the scope of services or violate the contract terms and conditions.					
AUTHORIZED LEGAL SIGNER: (Printed Name - Title) Kelly Kallio Director of Government Sponsored Programs		DIGITAL SIGNATURE AND DATE:			

Michigan Department of Transportation 5102 (07/19)		DOCUMENT OF CHANGES TO THE MDOT SCOPE OF SERVICES		Page 1 of 1	
This form is for use during the contract approval process and shall be attached anywhere the MDOT Scope of Services is used, such as in a contract exhibit. The MDOT Project Manager (PM) shall complete this form to document any changes (or verify no change) to an MDOT Scope of Service previously used for advertisement and for consultant selection that has been changed through, for example, the contract negotiation process or the scope verification meeting. This form is not required when a PM is requesting additional services through a revision or amendment to an agreement.					
PROJECT INFORMATION					
MDOT CONTROL SECTION(S) – JOB NUMBER(S): CS - JN			CONTRACT / AUTHORIZATION NUMBER: 0		
PRIME CONSULTANT NAME: Michigan Technological University			PROJECT DESCRIPTION: 2021 TAMC Culvert Condition Assessment		
<div>Box A.</div> <div><div></div>No changes have been made.</div> <div><div>If you selected one of the following, please complete Box B.</div><div><div></div>Changes have been made - pages are attached</div><div><div></div>Changes have been made - pages are <u>not</u> attached</div></div>			<div>Box B. (Select all that apply):</div> <div><div></div>Changes include a major adjustment in the project limits.</div> <div><div></div>Changes do not include a major adjustment in the project limits.</div> <div><div></div>Changes affect the engineer's estimate.</div> <div><div></div>Changes do not affect the engineer's estimate.</div>		

CERTIFICATION OF OVERHEAD COST RATE

- This Certification is required per U.S. Department of Transportation, Federal Highway Administration (FHWA) Order 4470.1A, and dated October 27, 2010. FHWA has issued this new policy to be **effective January 1, 2011**, requiring consultants provide certification that costs used to establish overhead cost rates for Federal-aid engineering and design related services contracts do not include any costs which are expressly unallowable; and that the overhead cost rate was established only with allowable costs.

- This certification is to provide assurance that the overhead costs rate was calculated in accordance with the applicable cost principles contained in the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR) Part 31.

- This form shall be completed and submitted by the prime consultant and each subconsultant (first and second tier subconsultant(s)) that have a derivation of cost sheet as part of this priced proposal where an overhead rate was proposed. Please note that the Certifying Official is defined as the firm's Executive (President, Vice President or equivalent) of Chief Financial Officer.

PROJECT INFORMATION

MDOT CONTROL SECTION(S) – JOB NUMBER(S):

CS - JN

CONTRACT / AUTHORIZATION NUMBER:

PROJECT DESCRIPTION:

2021 TAMC Culvert Condition Assessment

DECLARATION OF CERTIFICATION

OVERHEAD COST RATE:

35.80%

DATE MDOT ACCEPTED OVERHEAD COST RATE:

6/26/2017

FISCAL YEAR COVERED FOR RATE CALCULATION:

7/1/2020

to

6/30/2021

I, the undersigned, certify that I have reviewed the overhead rate calculation for the fiscal period as specified above and to the best of my knowledge and belief:

1.) All costs included to establish the above overhead cost rate are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) of title 48, Code of Federal Regulations (CFR), part 31.

2.) This overhead cost rate does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR 31.

Has the firm been approved to use the SAFE HARBOR INDIRECT COST RATE of 110% with the understanding that the Safe Harbor Rate will be used for the life of the agreement?

N

All known material transactions or events that have occurred affecting the firm's ownership, organization and overhead cost rates have been disclosed. All supplied wage rates contained within this submittal are true, accurate, and compliant with the guidelines established by 48 CFR 31.201-3.

CONSULTANT INFORMATION

LEGAL BUSINESS NAME:

Michigan Technological University

FEDERAL ID NUMBER: (Must match prequalification file)

386005955

ROLE: (Prime/Tier 1/Tier 2)

Prime Firm

COMPANY ADDRESS:

1400 Townsend Dr.

CITY:

Houghton

STATE:

MI

ZIP CODE:

49931

EMAIL (AUTHORIZED CONTRACT SIGNER):

rsch@mtu.edu

PHONE NO.:

9064872226

EMAIL (FOR SIGNED CONTRACT DISTRIBUTION):

rsch@mtu.edu

By signature on this form, the consultant agrees that information provided in the consultant priced proposal does not contradict the scope of services or violate the contract terms and conditions.

CERTIFYING OFFICIAL: (Printed Name - Title)

Kelly Kallio

Programs

DIGITAL SIGNATURE OF CERTIFYING OFFICIAL AND DATE:

Michigan Department of Transportation 5101A-1 (01.08.19)				SUMMARY OF TOTAL PROJECT COSTS BY JOB NUMBER				EXHIBIT A - 1			
All Prime and Subconsultant Costs for ALL JOB NUMBERS (including phases). For amendment or revision, complete this form showing all job numbers for all services provided. Report Tier 2 Subconsultant costs with Tier 1 Subconsultants. For use with all Priced Proposals. Use additional pages as necessary.											
MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN								CONTRACT / AUTHORIZATION NUMBER:			
PRIME CONSULTANT NAME: Michigan Technological University						DBE Goal:		PROJECT DESCRIPTION: 2021 TAMC Culvert Condition Assessment			
Consultant	Firm Role:	Contracted to:	Payment Method:	Job Number	Job Number	Job Number	Job Number	DBE (Y/N)	Total	% of Contract	
HOURS									1,665		
				1,665	-	-	-		1,665		
Michigan Technological University				P	MDOT	AC			1,665		
LABOR				\$ 71,011.95	\$ -	\$ -	\$ -		\$ 71,011.95		
Michigan Technological University				P	MDOT	AC	\$ 71,011.95		\$ -	\$ -	\$ 71,011.95
OVERHEAD				\$ 25,422.28	\$ -	\$ -	\$ -		\$ 25,422.28		
Michigan Technological University				P	MDOT	AC	\$ 25,422.28		\$ -	\$ -	\$ 25,422.28
OTHER DIRECT EXPENSES				\$ 38,573.69	\$ -	\$ -	\$ -	\$ 38,573.69			
Michigan Technological University				P	MDOT	AC	\$ 38,573.69	\$ -	\$ -	\$ 38,573.69	
TOTAL COSTS SUMMARY											
Consultant Totals	Firm Role:	Contracted to:	Payment Method:	Job Number	Job Number	Job Number	Job Number	DBE (Y/N)	Total	% of Contract	
Michigan Technological University P MDOT AC \$ 135,007.92 \$ - \$ - \$ - N \$ 135,007.92 100.0%											
Firm Role Key: P = Prime Firm, T1 = Tier 1 Sub, T2 = Tier 2 Sub											
TOTAL COSTS				\$ 135,007.92	\$ -	\$ -	\$ -	\$ 135,007.92	100.0%		

Michigan Department of Transportation 5101B (01.08.19)		DERIVATION OF PRIME CONSULTANT COSTS					Exhibit B	
Summary of all Prime Costs for ALL JOB NUMBERS (including phases) for all services provided. Use additional pages as necessary.								
MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN				CONTRACT / AUTHORIZATION #:		FIRM ROLE: Prime Firm		
PRIME CONSULTANT NAME: Michigan Technological University				PROJECT DESCRIPTION: 2021 TAMC Culvert Condition Assessment				
PRIME LABOR:								
CLASSIFICATION		CODE	HOURS	x	RATE/HR	=	LABOR COST	
Technical Specialist			200	x	\$ 30.05	=	\$	6,010.00
Director			120	x	\$ 67.30	=	\$	8,076.00
Research Engineer			40	x	\$ 31.30	=	\$	1,252.00
Sr. Research Engineer			385	x	\$ 49.55	=	\$	19,076.75
Sr. Software Architect			160	x	\$ 47.05	=	\$	7,528.00
Principal Programmer/Analyst			480	x	\$ 45.09	=	\$	21,643.20
Technical Writer			200	x	\$ 28.73	=	\$	5,746.00
Ui/UX Specialist			80	x	\$ 21.00	=	\$	1,680.00
Total Hours:			1665			Total Labor	\$	71,011.95
PRIME OVERHEAD: (Total Labor x Overhead Rate)								
Overhead Rate:			35.80%			Total Overhead	\$	25,422.28
PRIME OTHER DIRECT EXPENSES: (List each item once at Actual Cost - NO MARKUP.)								
Items		Quantity	@	Unit Price	Unit	=	Item Price	
Fringe Benefits - Prof		71,011.95	@	\$ 0.400	Dollar	=	\$	28,404.78
ODC Overhead		28,404.78	@	\$ 0.358	Dollar	=	\$	10,168.91
Total Other Direct Expenses						\$	38,573.69	
TOTAL PRIME FIRM COSTS						\$	135,007.92	
Firm Role: Prime Firm				Note: Payment Method = AC				

SUMMARY OF PERSON HOURS BY PPMS TASK

EXHIBIT D

All Prime and Subconsultant Hours for EACH JOB NUMBER (including phases). For amendment/revision, complete this form showing all job numbers for all services provided. Use additional pages as necessary.

MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN	CONTRACT / AUTHORIZATION NUMBER:
PRIME CONSULTANT NAME: Michigan Technological University	PROJECT DESCRIPTION: 2021 TAMC Culvert Condition Assessment

SUMMARY OF HOURS BY PPMS TASK							
PPMS Task Code	Task Description	Firm Init.	MDOT JN	MDOT JN	MDOT JN	MDOT JN	Total
5200	Task 1: Provide Technical Writing and Editing for the T	Total	240	-	-	-	240
		MTU	240	-	-	-	240
5220	Task 2: Update and Provide Culvert Condition Assess	Total	320	-	-	-	320
		MTU	320	-	-	-	320
5240	Task 3: Update Roadsoft Culvert Module for TAMC Ins	Total	920	-	-	-	920
		MTU	920	-	-	-	920
5260	Task 4: Final Report	Total	185	-	-	-	185
		MTU	185	-	-	-	185
SUMMARY OF HOURS BY FIRM							
Role	Firm Name	Firm Init.	MDOT JN	MDOT JN	MDOT JN	MDOT JN	Total
Prime Firm	Michigan Technological University	MTU	1,665	-	-	-	1,665
Totals			1,665	-	-	-	1,665

Michigan Department of Transportation 5101E (01.08.19)		PROPOSED PERSON HOURS BY PPMS TASK								EXHIBIT E	
<i>Summary of all Prime or Subconsultant Hours for ALL JOB NUMBERS (including phases). For amendment/revision, complete this form showing all job numbers for all services provided. Submit only one form per consultant. Use additional pages as necessary.</i>											
MDOT CONTROL SECTION(S) - JOB NUMBER(S): CS - JN							CONTRACT / AUTHORIZATION #:		FIRM ROLE: Prime Firm		
CONSULTANT NAME: Michigan Technological University							PROJECT DESCRIPTION: 2021 TAMC Culvert Condition Assessment				
SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S PER PPMS TASK AND CLASSIFICATION											
PPMS Task Code	Task Description	Technical Specialist	Director	Research Engineer	Sr. Research Engineer	Sr. Software Architect	Principal Programmer/Analyst	Technical Writer	Ui/UX Specialist		HOURS FOR TASK
5200	Task 1: Provide Technical Writing and Editing for the TAMC Inspection Report		20		60			160			240
5220	Task 2: Update and Provide Culvert Condition Assessment	80	40	40	160						320
5240	Task 3: Update Roadsoft Culvert Module for TAMC Inspection	120	40		40	160	480		80		920
5260	Task 4: Final Report		20		125			40			185
SUMMARY OF PERSON HOURS FOR ALL MDOT JN'S											
Classification:		Technical Specialist	Director	Research Engineer	Sr. Research Engineer	Sr. Software Architect	Principal Programmer/Analyst	Technical Writer	Ui/UX Specialist		HOURS FOR FIRM
Total Hours:		200	120	40	385	160	480	200	80		1665

**TRANSPORTATION ASSET MANAGEMENT COUNCIL
STRATEGIC PLANNING SESSION MINUTES
August 4, 2021 at 11:00 a.m. – 3:00 p.m.**

The meeting was held via hybrid method using Microsoft Teams and also in-person at the Michigan Technological University, Michigan Tech Research Institute Auditorium, 3600 Green Court, Suite 100, Ann Arbor, Michigan. Below are meeting minutes as provided under Act 267 of the Public Acts of 1976 as amended, or commonly referred to as the Open Meetings Act. Persons needing accommodations for participating in TAMC meetings should contact Roger Belknap, Council Coordinator, at least 24 hours prior to the start of meetings: belknapr@michigan.gov or Telephone: (517) 230-8192.

**** Frequently Used Acronyms List attached**

Members Present and In-Person at MTU, Ann Arbor, MI:

Christopher Bolt, MAC
Ryan Buck, MTPA
Bill McEntee, CRA – Vice-Chair
Robert Slattery, MML

Derek Bradshaw, MAR
Joanna Johnson, CRA – Chair
Gary Mekjian, MML
Todd White, MDOT

Support Staff Present:

Roger Belknap, MDOT
Eric Costa, MDOT
Jesus Esparza, MDOT
Cheryl Granger, DTMB/CSS
Mark Holmes, DTMB/CSS
Kyle Nelson, MDOT
Brian Vilmont, Prein & Newhof

Tim Colling, MTU/LTAP
Rebecca Curtis, MDOT
Nan Ewald, DTMB/CSS
Robert Green, MDOT
Eric Mullen, MDOT
Mike Toth, MDOT

Public Present:

Amber Hicks, MIC
Kristin Pline, WAMC

Erin Kruhn, WMSRDC
Larry Steckelberg, MIC

Members Absent:

Rob Surber, DTMB/CSS
Jennifer Tubbs, MTA
Brad Wieferich, MDOT

1. Welcome – Introductions and Meeting Purpose - Update TAMC Strategic Work Program:

The meeting was called-to-order at 11:05 a.m. Everyone was introduced and welcomed to the meeting. Attendance was verified by roll call by Gloria Strong.

2. Michigan Infrastructure Council Update – Amber Hicks/Erin Kuhn/Larry Steckelberg:

The MIC has completed their first Asset Management Champions Program. They have three champions graduate from the champions program. Todd White and Joanna Johnson are two of the champion graduates. The MIC is in the process of completing the legislatively mandated 30-year strategy process. They are looking to hire a consultant to do the plan. The MIC is hoping to provide TAMC with any support needed and looking for ways on how the MIC and TAMC can work closer together. The Water Asset Management Council has had staffing issues and also due to COVID 19 they have had a difficult time moving forward with some of the initiatives they had initially proposed. It is a goal to have all three Councils meet together at least once a year. Cross Council meetings would be extremely helpful. L. Steckelberg feels cross asset

coordination would give a larger picture in terms of investment in communities. The MIC is also working on a project portal.

3. Where would Council Members like TAMC to be in 20 Years?:

The following are ideas of where Council members envisions TAMC will be in 20 years:

1. Cross infrastructure coordination - Partnering more with water and other infrastructure systems to get one statewide strategy. Across the board, all assets have a baseline of statewide standards.
2. Educating the public of costs and what goes in to a reconstruct of building a bridge or road construction. They need to know how they get a return on their investment.
3. Request from the Legislature to provide funding closer to what is actually needed in order to make our roads safe and in good repair.
4. Have the agencies actually implement the TAMPs that are being submitted.
5. Using our members agencies more affectively to educate the public.
6. Create Scenarios and present those scenarios to the State Transportation Commission (STC) to assure they understand how the data that is submitted to TAMC impacts the system.
7. TAMC needs to find out what the public feels is a priority for our bridge and road systems.
8. Have one data collection integrated asset information system where data is readily available to everyone, including the public.
9. Having updated tools such as data on traffic signals, signs, and guardrails, if needed and keep all data updated.
10. Keeping all data submitted to TAMC updated. All data, past and current should reflect changes over time.
11. More collaboration with other agencies, such as the local sewer departments, etc.
12. TAMC should provide more education on the day-to-day things, such as crackseal pavement preservation treatment. TAMC has different audiences, such as planners, engineers, legislature, and the public that must be educated at their level of understanding and needs.
13. To maintain TAMC's level as a national leader in asset management
14. TAMC to participate in national and federal conferences
15. TAMC needs to create a communication strategy on how to communicate with the feds, agencies, public, legislature, and local officials (city and county).
16. TAMC will need to reach out of their comfort zone to go to the next level
17. TAMC may not be in existence and no longer needed once a universal data system and asset management processes have been established. Therefore, the agencies could take over and have a culture of coordination. At that point in time, TAMC would have given the agencies the tools to do data collection.
18. TAMC have an asset management certification program or an advanced Michigan asset management program.
19. Would like to see the Municipal governments play a larger role with the roads and repairs
20. Have more knowledge of what kind of treatments are under the pavement that can be done
21. Potentially coordinate with other pavement condition assessment systems, such as Pavement Condition Index (PCI).
22. Have titles of people change to asset management coordinators instead of engineers.
23. Better service delivery. The public are not educated on how our roads and bridges get built or repaired. TAMC needs to have conversations with the users and set goals as to where they want the roads to be and make more purposeful choices. Some people are actively putting together mileages. TAMC to inform people on exactly what to expect for any particular road or bridge and give them an honest answer even if it is an answer that will not be to their liking. The public needs to be aware of why roads are not getting repaired and given an honest answer. Let them know what funding will pay for things such as state funding or a mileage. If there is no funding available, they need to know that also.
24. TAMC become a more diverse Council that includes different races and backgrounds.
25. TAMC to collect all data from a variety of sources and sharing of the local data through MGF; all data and not just pavement and bridges. TAMC will need to find a way to encourage agencies to share their

valuable information and find a way to not be redundant and only have to enter the data one time. What other data that is valuable to them can TAMC provide?

26. TAMC to hold a large conference annually with the MI and WAMC. The conference would include topics such as water, pavement, bridges, and utilities sharing collaboration efforts and different ideas in one large conference.
27. Modernization and keeping up with the latest technologies
28. Make TAMC a national asset management leader
29. Communication strategy to multiple levels – local, legislative, elective
30. Data collection and innovation on how to collect and distribute data
31. Education and training/Tools

Major points pulled from the above that were noted by the Council:

1. TAMC to be a national leader in asset management
2. Collaboration between MIC/WAMC (Large Conference), across assets/jurisdictions
3. Community Strategy – public, local officials, legislative
4. Data Collection – innovation, provide valuable information to the public (value benefit vs. cost)
5. Education/information
6. Training/tools – keep updated
7. Creating a culture of asset management – job titles, service, delivery, risk

4. TAMC Mission & Vision Review – J. Johnson:

J. Johnson reviewed the TAMC Mission Statement. Policies were not discussed.

Supporting Information:

- A. Review of Legislation Involving TAMC & [Public Act 51](#)
- B. [TAMC Bylaws](#) (Adopted 2-5-20)
- C. Policies for Roadway Data Collection
 1. [Policy for the Collection of Roadway Surface Condition Data](#) (3-6-19)
 2. [2021 Pilot Policy for the Collection of Roadway Surface Condition Data](#) (12-10-20)
- D. [Policy for the Submittal and Review of Asset Management Plans](#) (9-4-19)
- E. [Policy for Local Agency Act 51 Reporting Requirements](#) (8-5-12)
- F. [Policy for Collection of Bridge Condition Data](#) (9-6-17)
- G. [Policy for the Collection of Culvert Inventory and Condition Data](#) (6-2-21)

5. 2021 – 2023 Strategic Work Program Update - Goals and Objectives:

Some of the suggestions from the Council members on what they feel should be in the next strategic plan:

5.1. - GOALS:

1. Possibly modifying the bylaws so all Council members have the ability to add someone to participate on a TAMC committee.
2. Create a more diverse Council – integrate other races and genders in the Council and on TAMC committees. Members feel their associated agencies (MML, MTPA, CRA, etc.) should be looking to include different races and genders when making their selections as to who should participate with TAMC to give a different perspective.
3. TAMC needs a volunteer from the Michigan upper peninsula.
4. The public is always welcome to attend committee meetings and make comments even though the committee meetings are not under the Open Meetings Act.
5. Interact better with our transportation partners; possibly send out the meeting packets via eGov Delivery, during the Regional Coordinators Calls (holding more frequently and throughout the year) or holding and participating in conferences/meetings. Anything that the Council does, this information should be shared.

6. Succession planning – Council members can invite guests from their respective organizations to attend TAMC meetings.

OBJECTIVES:

1. Surveying and reporting the condition of roads and bridges by functional classification and legal system ownership categories.
2. Analyzing completed and planned investments in roads and bridges.
3. Modify the TAMC bylaws

Action Items:

1. J. Johnson will work with R. Belknap and ACE Committee on modifying bylaws.
2. R. Buck will put together some ideas on ways to include a more diverse culture.
3. TAMC member bio's need to be updated on the TAMC website.

5.2. – ACE Committee – D. Bradshaw (Attachment 3)

TAMC needs to look at their budget with a vision in the future. Instead of a one-year budget, look at doing a three-year budget. What are TAMC's goals and how much will it take to achieve those goals?

It was discussed to possibly place TAMC updates on social media. It was felt that TAMC could not do it due to lack of staffing but could share things on their own personal social media. Who would send the updates out – MDOT or TAMC support staff? This would be a full time job and could become very political.

TAMPs – Is there anything they need to look for in the next round?

The ACE Committee needs to know what is ACE Committee responsibilities and what is Data Committee responsibilities? Directions from Council are sometimes unclear.

5.3. – Bridge Committee – C. Bolt/R. Curtis (Attachment 4)

Inspection and technology to improve over time – imaging software and advance data analytics, work with experts, MDOT, etc.

Bridge owners will need to invest a lot of effort to collect the extra data to meet bridge requirements. Allow Metropolitan Planning Organizations/Regional Planning Organizations to reimburse for this.

Having an assessment from agencies to evaluate if TAMC is still a leader in asset management when it pertains to bridges.

5.4. – Data Committee – B. McEntee (Attachment 5)

Google Analytics – Suggests getting a google analytics expert to help give guidance to TAMC on how to use this information.

Signal Inventory – What items to be collected, what updates need to be done to the IRT, and if TAMC needs to make changes to the TAMP requirements.

Data Coordination – MIRE data collection may overlap with TAMC traffic signal inventory. This is duplication of effort. TAMC needs a process to assure that what TAMC and MIRE are looking for are adequately coordinated. This would save on CSS doing double entries.

Alternative methods to doing pavement collection data – TAMC needs to evaluate what SEMCOG and others are doing not just the surface condition but also the structural condition of roads.

Keeping TAMC data current and available into the future. TAMC needs to take care of our assets and stay on top of how data is stored so none gets lost.

6. Michigan Technological University-Center for Technology & Training – T. Colling:

6.1. - Education Work Plan

Does TAMC want MTU to conduct the trainings in-person, remote, or hybrid?

Heavy spring and fall TAMP trainings will be conducted for the last two TAMP groups. For 2023 what is TAMC's role in training people again after all groups have submitted their plans? Can people three years from now just change the date on their plan and resubmit?

A Culvert work plan for 2023

Local Agency Asset Management Manual – It could be a manual on how to keep their TAMP up to date. It will need to be updated. Does TAMC need it? It is a large document. Will this document help the smaller agencies? Most of them call other agencies to help with their plan. Is it being utilized? This is a searchable document online but is outdated. TAMC needs to take a look at it to see if it is needed.

6.2. - Activities Work Plan

MTU is contracting with a consultant to do their Roadsoft software to do their QA/QC.

Bridge Asset Management State of Practice for data collection – What does TAMC want out of it or do they just want a general overall?

True to cost, true to life case study – MTU needs TAMC to give them the word and they can do it.

Traffic signals element to Roadsoft - Can the four questions be integrated into the IRT and how do we stop the duplication of effort like with the MIRE issue?

Alternative methods of collecting condition data – MTU has a nation-wide summary and where PASER data may fall within that summary – use this to educate the TAMC Data Committee.

7. - Michigan Center for Shared Solutions Work Plan – C. Granger/M. Holmes:

C. Granger worked through the CSS workplan and budget. She categorized it as to what TAMC has CSS to do. CSS prioritized the work with B. McEntee and the Data Committee. CSS has worked on several IRT updates this year. The CSS budget total is \$374,950.

Tasks CSS has been assigned by TAMC:

Additional application upgrades – the ADARS people are handling this.

STIP integration

MGF Portal

Signal Inventory

Technology Refresh – Job script is going to be unsupported soon and CSS will need to modify this and make changes to the website.

ADA Review and Usability Testing has taken them a lot of hours so far.

Administrative Support – Preparations of reports, etc.

Provide eight training webinars
Dashboard maintenance
Culvert work

Action Item: C. Granger will share this information with the Council.

8. – FY 2022 TAMC Budget - J. Johnson:

- 8.1. Budget History & Timeline**
- 8.2. FY2022-2023 Budget**
- 8.3. Future Budget Request?**

Action Item: J. Johnson would like the ACE Committee to review the TAMC budget. Does this year's budget reflect the effects from COVID?

9. - Summary of Assignments for Committees – J. Johnson:

Continue to have the dialogue and conversation about where TAMC should be 20 years from now.

10. Public Comments:

None

11. Member Comments:

None

12. Adjournment:

The session was adjourned at 2:51 p.m. The next full Council meeting is scheduled for September 1, 2021, at 1:00 p.m. More information will be provided regarding if this meeting will be held in-person, virtually, or hybrid.

TAMC FREQUENTLY USED ACRONYMS:		
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	
ACE	ADMINISTRATION, COMMUNICATION, AND EDUCATION (TAMC COMMITTEE)	
ACT 51	PUBLIC ACT 51 OF 1951-DEFINITION: A CLASSIFICATION SYTEM DESIGNED TO DISTRIBUTE MICHIGAN'S ACT 51 FUNDS. A ROADWAY MUST BE CLASSIFIED ON THE ACT 51 LIST TO RECEIVE STATE MONEY.	
ADA	AMERICANS WITH DISABILITIES ACT	
ADARS	ACT 51 DISTRIBUTION AND REPORTING SYSTEM	
BTP	BUREAU OF TRANSPORTATION PLANNING (MDOT)	
CFM	COUNCIL ON FUTURE MOBILITY	
CPM	CAPITAL PREVENTATIVE MAINTENANCE	
CRA	COUNTY ROAD ASSOCIATION (OF MICHIGAN)	
CSD	CONTRACT SERVICES DIVISION (MDOT)	
CSS	CENTER FOR SHARED SOLUTIONS	
DI	DISTRESS INDEX	

ESC	EXTENDED SERVICE CONTRACT	
ETL	Exchange, Transfer, and Load	
FAST	FIXING AMERICA'S SURFACE TRANSPORTATION ACT	
FHWA	FEDERAL HIGHWAY ADMINISTRATION	
FOD	FINANCIAL OPERATIONS DIVISION (MDOT)	
FY	FISCAL YEAR	
GLS REGION V	GENESEE-LAPEER-SHIAWASSEE REGION V PLANNING AND DEVELOPMENT COMMISSION	
GVMC	GRAND VALLEY METRO COUNCIL	
HPMS	HIGHWAY PERFORMANCE MONITORING SYSTEM	
IBR	INVENTORY BASED RATING	
IRI	INTERNATIONAL ROUGHNESS INDEX	
IRT	INVESTMENT REPORTING TOOL	
KATS	KALAMAZOO AREA TRANSPORTATION STUDY	
KCRC	KENT COUNTY ROAD COMMISSION	
LDC	LAPTOP DATA COLLECTORS	
LTAP	LOCAL TECHNICAL ASSISTANCE PROGRAM	
MAC	MICHIGAN ASSOCIATION OF COUNTIES	
MAP-21	MOVING AHEAD FOR PROGRESS IN THE 21 ST CENTURY (ACT)	
MAR	MICHIGAN ASSOCIATION OF REGIONS	
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION	
MDTMB	MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET	
MIC	MICHIGAN INFRASTRUCTURE COMMISSION	
MITA	MICHIGAN INFRASTRUCTURE AND TRANSPORTATION ASSOCIATION	
MML	MICHIGAN MUNICIPAL LEAGUE	
MPO	METROPOLITAN PLANNING ORGANIZATION	
MTA	MICHIGAN TOWNSHIPS ASSOCIATION	
MTF	MICHIGAN TRANSPORTATION FUNDS	
MTPA	MICHIGAN TRANSPORTATION PLANNING ASSOCIATION	
MTU	MICHIGAN TECHNOLOGICAL UNIVERSITY	
NBI	NATIONAL BRIDGE INVENTORY	
NBIS	NATIONAL BRIDGE INSPECTION STANDARDS	
NFA	NON-FEDERAL AID	
NFC	NATIONAL FUNCTIONAL CLASSIFICATION	
NHS	NATIONAL HIGHWAY SYSTEM	
PASER	PAVEMENT SURFACE EVALUATION AND RATING	
PNFA	PAVED NON-FEDERAL AID	
PWA	PUBLIC WORKS ASSOCIATION	
QA/QC	QUALITY ASSURANCE/QUALITY CONTROL	
RBI	ROAD BASED INVENTORY	
RCKC	ROAD COMMISSION OF KALAMAZOO COUNTY	
ROW	RIGHT-OF-WAY	
RPA	REGIONAL PLANNING AGENCY	
RPO	REGIONAL PLANNING ORGANIZATION	
SEMCOG	SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS	

STC	STATE TRANSPORTATION COMMISSION	
STP	STATE TRANSPORTATION PROGRAM	
TAMC	TRANSPORTATION ASSET MANAGEMENT COUNCIL	
TAMP	TRANSPORTATION ASSET MANAGEMENT PLAN	
TPM	TRANSPORTATION PERFORMANCE MEASURES	
UWP	UNIFIED WORK PROGRAM	
WATS	WASHTENAW AREA TRANSPORTATION STUDY	

S:/GLORIASTRONG/TAMC FREQUENTLY USED ACRONYMS.03.15.2021.GMS

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